

# ARCHITECTURE

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## The Trend in School Building Design

*By James O. Betelle, F.A.I.A.*

OF THE FIRM OF GUILBERT & BETELLE, ARCHITECTS, NEWARK, N. J.

**P**ROSPEROUS times for the past ten years, together with a greater demand for public education, have brought a great number of school buildings throughout the country. The erection of these buildings has furnished an opportunity, through experience, for the educators and architects to improve them, not only in design and construction but also in layout, thereby making them more suitable and usable as educational structures.

The present business depression and reduced municipal budgets, in so far as they affect public education, are only temporary. The citizens of our country have continually demanded better and better educational facilities for their children, and they will continue to do so as long as this country remains a republic. It must also be remembered that the country will continue to

increase in school pupils, and existing buildings will become obsolete, so that the demand for new buildings will accumulate as it did during the World War, when new school construction was temporarily stopped. When better times come there will be an increase in building costs, so that now is the time to build, when the dollar will buy the maximum in both labor and building materials.

It is often asked: "Why is it that our present school buildings cost so much more than they used to?" Of course, one large item is the increased cost of labor and materials, though this is a matter which is correcting itself in a measure, due to the business depression. There are many other items, however, that have increased the expense of the present-day building over the school of generations ago, due to the fact that there is an insistent demand for better housing



Photograph by Richard Averill Smith

*New Rochelle High School, New Rochelle, N. Y., accommodating 2,377 pupils.  
See also pages 253 to 255*



conditions and also more complete educational facilities than those that we were satisfied with in years past. To-day there is a demand for the use of special plaster on the walls and ceilings in noisy rooms and the use of some quiet floor material in order to eliminate noise. There is a demand for more elaborate electrical equipment and lighting throughout the building, the installation of radio receiving systems and for moving pictures with sound equipment. Larger auditoriums are installed, together with large gymnasiums with space for many spectators, and swimming-pools with their adjoining shower and locker rooms, more miscellaneous rooms for administrative and health work, lunch-room and kitchen, and rooms for extra-curricular activities. These and many similar items of improvement and refinement were not considered necessary, nor were they known about, a generation ago. There is no argument about the desirability, nor the educational value, of these various items, but they are simply mentioned to answer the persistent inquiry as to why there has been an increase in the cost of school buildings.



Another factor which places a mandatory increase on school-building costs is the multiplicity of school-building laws enacted by the various States. No amount of rules and regulations will make an incompetent architect design a good school building. On the other hand, these rules and regulations in such minute detail handicap the good architect and prevent him in many cases from exercising his skill and ingenuity in producing some new and worthwhile improvement in school design. The state school-building laws throughout the country are in great need of standardization, with variations to suit local conditions, as they now extend from nothing at all in some States to a code going into great detail in others, and also coming under the control of several state departments. The school-building inspectors of the various States have formed an association, and the standardization of state school-building codes is one of their objectives; they will no doubt bring order out of chaos in the next few years.

The consolidation of rural schools, while not altogether a modern trend, since it has been go-

ing on for some years, has been stimulated by the improved concrete highways and the safe and efficient motorbus transportation, which permits more readily than ever before the elimination of small rural schools and the consolidating of a number of them into one large unit. There are still thousands upon thousands of small, one-room schools existing throughout the country, but no more are being erected and many are being eliminated by consolidation each year. By consolidating the elementary and high school into larger units, a better quality of instruction and a lower cost per pupil are made possible.

In rural schools it has always been necessary to make some provision for the children to eat their noonday lunches. In times past the children simply brought a cold package lunch and ate it in their schoolrooms. It is now conceded by every one that for the health of the children something better than a cold lunch hastily swallowed should be provided, both in the rural and in the city schools, which means some sort of hot dishes and a better place in which to eat. To do this some kind of kitchen must be provided, and in the larger schools a cafeteria lunch-room as well. A considerable amount of room is occupied by a cafeteria lunch-room, and the modern tendency is not to leave this space idle and unoccupied except for possibly an hour or two at noon, but to make it serve some useful purpose all of the time. As the modern school has a minimum amount of basement and is built above the ground rather than in the ground, the cafeteria is as well lighted as any classroom. By closing off the kitchen and cafeteria counter, and with the use of folding doors, the large area of the cafeteria can be divided into spaces suitable for any school purpose where flat-topped tables and chairs make appropriate furniture, such as a study-room, ordinary recitation-rooms, etc.

Another modern trend which is noticeable is a reduction in the size of school auditoriums and their more intensive use. Until recent years, it was felt necessary that the auditorium be large enough to seat practically the entire school at one time. This made it a very large, expensive, and unwieldy room, and as a result it was used very little of the time, which represented a considerable waste of capital expenditure. It is now realized that to justify the expense of an auditorium it must be in constant use. For strictly school purposes, an auditorium seating about two hundred and fifty is large enough

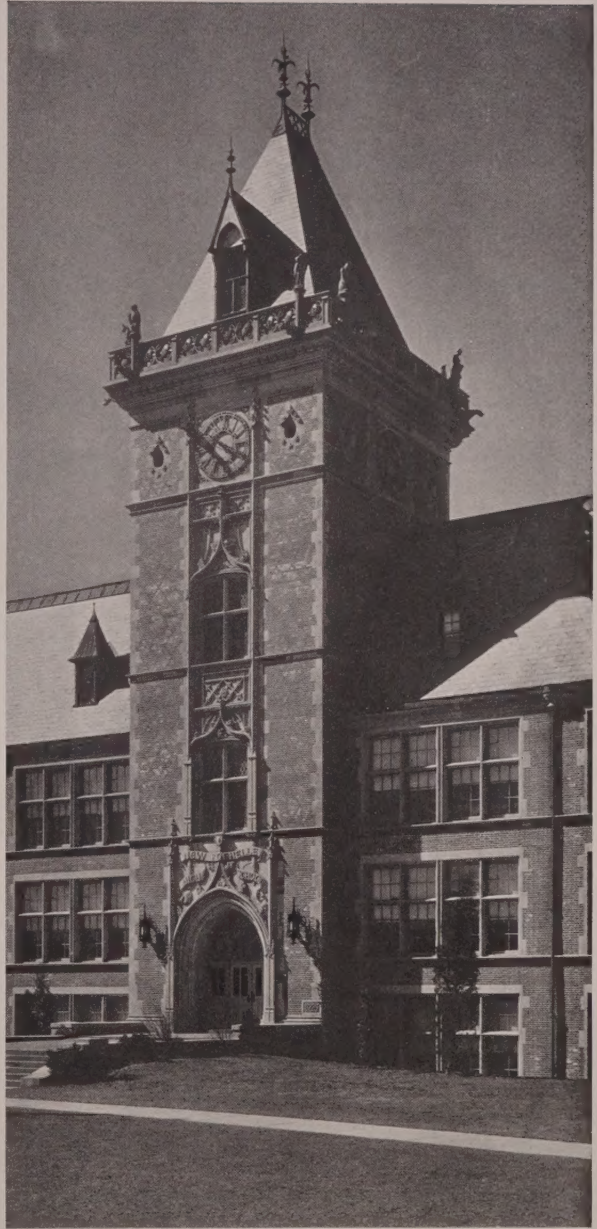


for a large elementary school, and one not larger than a third of the pupil capacity is big enough for a junior high school. In a high school the size of the auditorium depends upon how important it becomes from a community and civic standpoint. A town needs one large auditorium for civic meetings of all kinds, but even then the trend is toward reduction in size.

There is also a trend toward reduction in the amount of blackboard space provided in the classrooms, and a corresponding increase in the amount of corkboards provided for pinning up pupils' work or other exhibits. Modern teaching methods no longer send large groups of children to the blackboard at one time, so that there is now a tendency to provide blackboards only across the front of the room in back of the teacher's desk. The side and rear walls, where space is available, are covered with corkboard in a frame similar to the blackboards.

There is a new technic being evolved in modern education of which the architect must take note. Classroom instruction is becoming more informal, movable furniture is being used, and much more storage space is being made available in each classroom. This storage space takes the form of cupboards, drawers, etc., set flush with the walls, where possible, wherein the illustrative material, extra text-books, supplies, etc., are kept. There is also provided a series of cupboards or drawers where each individual pupil may keep his own working materials and books. In many classrooms a sink or wash-basin is also provided. There is also a tendency to increase the area of the classroom slightly, or to reduce the number of pupils in each class, as the new educational methods need more space to carry out their projects than was needed in the older and more formal type of instruction, where fixed seats in rows were used. The type of education to be carried out in the building determines its layout, and the architect, to render the best services to his client, must be familiar with educational matters, as well as with architecture and building.

European school buildings have very little to offer us, so far as new ideas are concerned. Very few schools have been erected in Europe since the war, so that America has the best school buildings in the world to-day. Europe must come to us for new ideas in schools as she has had to do in other lines. The one important thing Europe has contributed is the so-called "Modernistic" style of architecture used in the treatment of the exterior. There is a distinct



*Central entrance detail, New Rochelle High School. The walls are of red brick trimmed with cut limestone; the roof, of variegated green slate*

trend in America to break away from the traditional structural forms. There is merit in this tendency and it is to be encouraged so long as it is not carried to extremes, of which there is no evidence as yet.

There are also some fundamentals in connection with school-building design which may not necessarily be modern in trend, because they have always held good, though not always followed, and which it might not be amiss to mention at this time:

1. An educational survey by competent au-



thorities, with definite recommendations as to the number, size, type, and location of the buildings, giving thought to the future development of the community, is always time and money well spent.

2. The adoption by the boards of education of a building programme, along the lines recommended in the educational survey covering a period of years, permits the purchasing ahead of time of sites for school buildings, thereby saving thousands of dollars to the taxpayers.

3. Consultation with architects as to the cost of a school building containing the educational accommodations recommended by the superintendent of schools before an appropriation to erect the building is asked.

4. The use of simple and substantial materials and the avoiding of imitations and substitutes which do not have the wearing qualities of the materials imitated.

5. Economy practised in its various forms, such as economy in plan or layout, economy in materials, and, last but not least, economy in the use of the building. Each of these types of economy must be used with discretion and judgment, otherwise they become mere forms of extravagance.

The most modern of educational facilities in our schools to-day are the radio and the sound picture, and it will not be long before television

will also be available. All of these facilities bring the outside world into the classroom and are suitable for group instruction in certain subjects. Radio instruction by television will mean an adjustment in the plan of our schools to accommodate the larger groups, and just what these adjustments will be no one can foresee at this time. There will undoubtedly be a central sending station in one of our large cities, possibly in connection with a great university, where the finest instruction talent is available, which will broadcast lessons to pupil groups assembled in various parts of the country. These lessons will be amplified and explained by the classroom teachers in charge of each group.

One of the healthiest signs of the modern trend is the fact that superintendents of schools are taking courses of lectures at our higher institutions of learning dealing with the school-building plant, and architects are studying educational methods and routine. This will not make architects out of school superintendents, or educators out of architects, but it will bring about a better teamwork and a better understanding of each other's problems. It will also enable them to speak and understand a common language, and, by working for a common end, bring about better designed, more economical and usable school buildings, which above everything else is the trend of to-day.



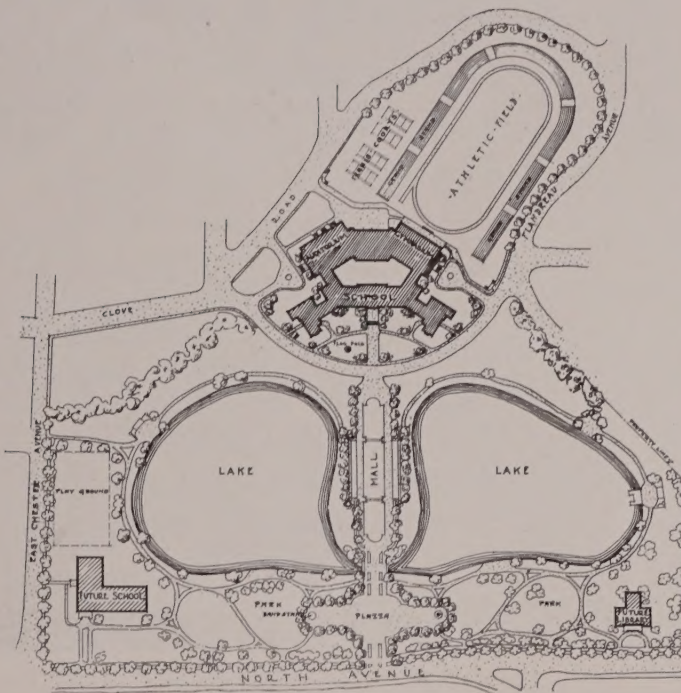
Photograph by Richard Averill Smith

*Essex County Girls Vocational School, Newark, N. J., built of fire-proof construction in light buff brick and limestone. Further illustrations will be found on pages 265 to 267*



# Some Recent School Buildings of Guilbert & Betelle, Architects

*Plot plan of the New Rochelle High School, New Rochelle, N. Y. The two lakes were originally old ice ponds, and have been made available for boating and swimming in the summer, and for skating in the winter*

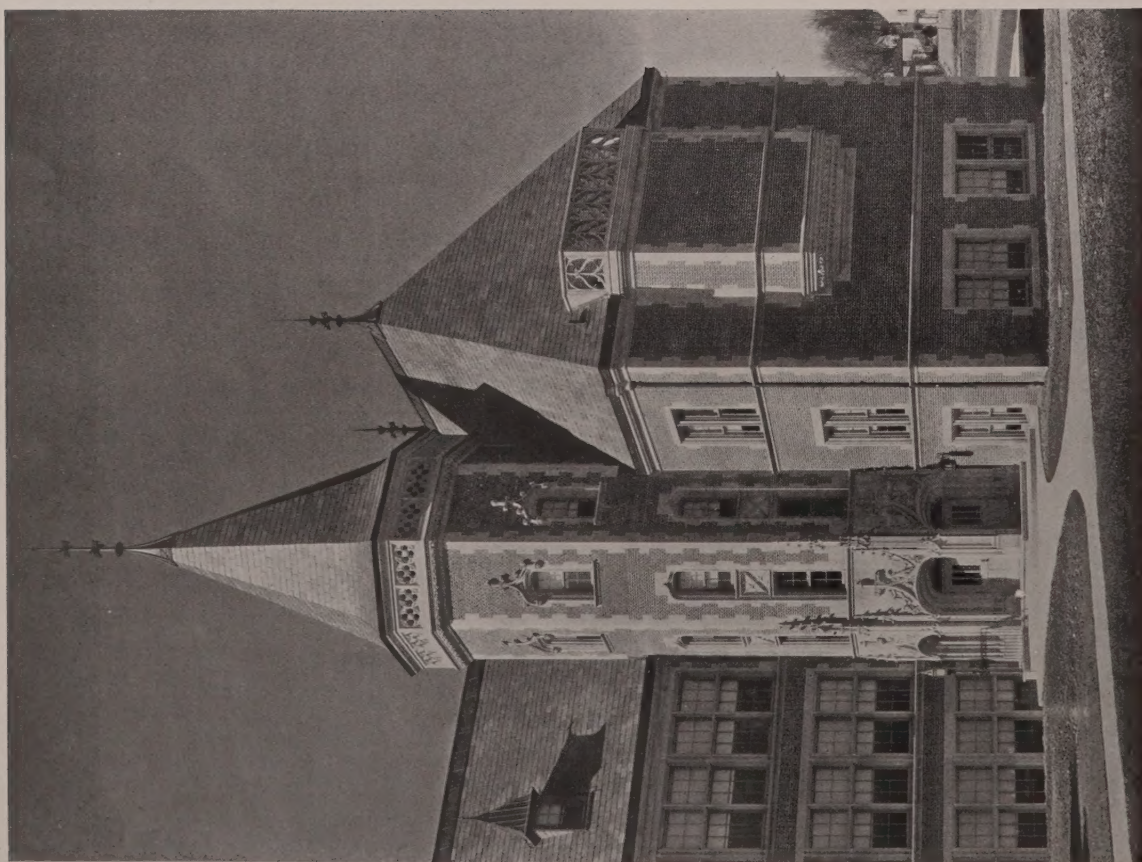


*Below, a detail view across the entrance front. The triangular form of the plan suggested the use of Gothic precedent as a point of departure, and, because of the traditions of the country, extending back to Rochelle, France, French Gothic was chosen*



*Photograph by Richard Averill Smith*





*Entrance detail of the right-hand front wing*

*Photographs by Richard Averill Smith*



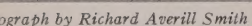
*Detail of entrance to the auditorium*

*New Rochelle High School, New Rochelle, N. Y. See plans opposite*



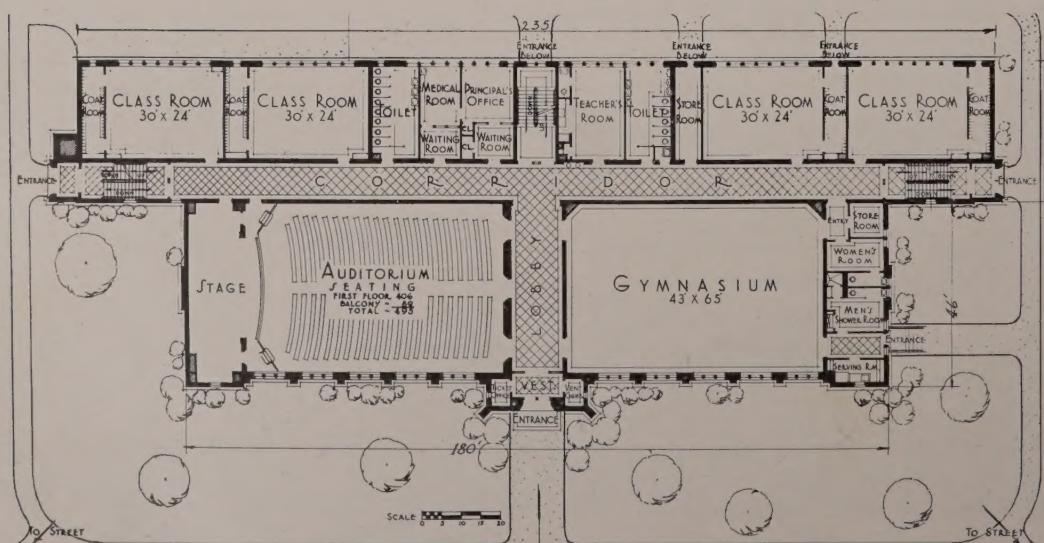






Architectural floor plan of the upper part of a building. The plan shows a central corridor (CORRIDOR) with a cross-hatched pattern, flanked by six Class Rooms (24' x 30') on the top. Below the corridor are the Upper Part of Stage, Upper Part of Auditorium, and Upper Part of Gymnasium. A Picture Booth is located between the Auditorium and Gymnasium. A Library is attached to the Gymnasium. Toilets are located at the bottom center and right. The plan includes various architectural details such as doors, windows, and structural columns.

Labels in the plan include: CLASS ROOM 24' X 30', CORRIDOR, UPPER PART OF STAGE, UPPER PART OF AUDITORIUM, PICTURE BOOTH, UPPER PART OF GYMNASIUM, LIBRARY, TOILET, and various smaller labels for doors and structural elements.







Photograph by Richard Averill Smith

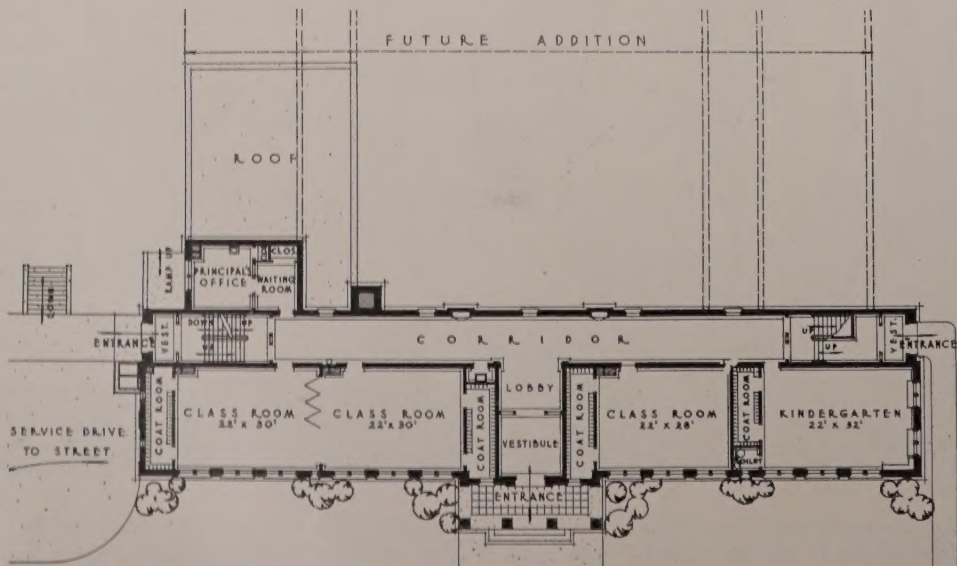
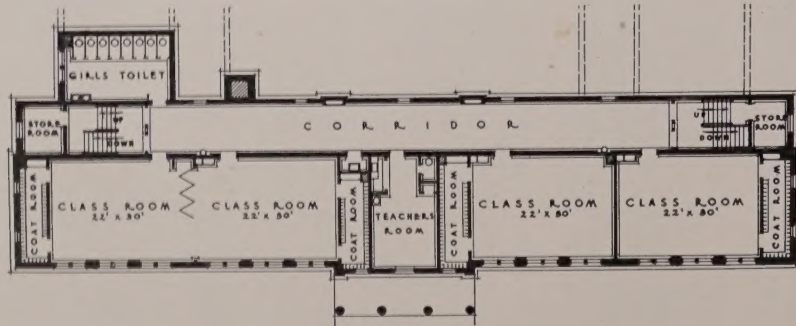
*Detail of the main entrance, Jefferson School, Summit, N. J. Here, as in all of the architects' work, the cupola is entirely sheathed with copper. The cornice throughout is copper, the portico columns and tympanum, wood*



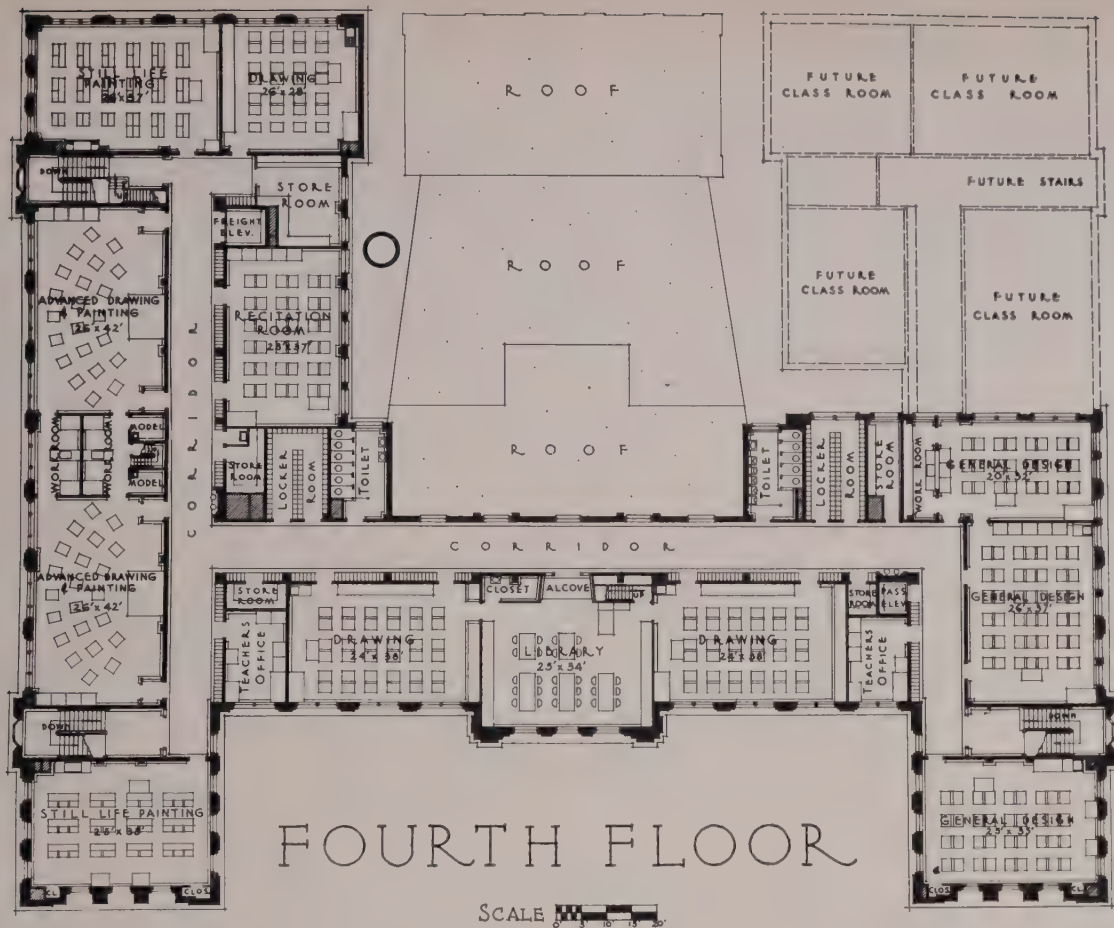


Photograph by Richard Averill Smith

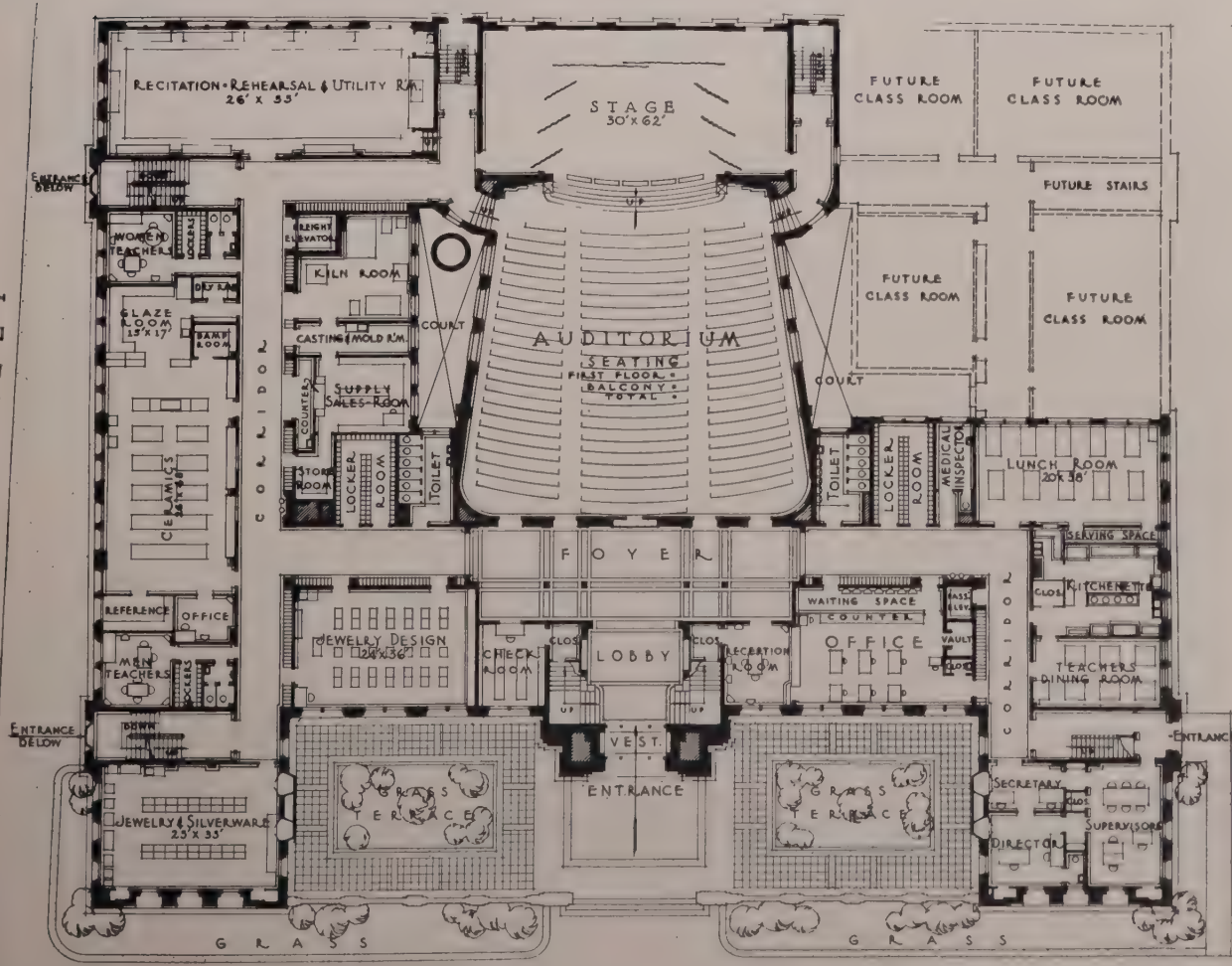
*Jefferson School, Summit, N. J., from the front. The plans below indicate the future additions, which explain the present long narrow form*







Below, first floor, and above, fourth floor of the Newark Public School of Fine and Industrial Art



WILLIAM STREET

PROPERTY LINE

HIGH STREET





Photograph by Richard Averill Smith

*Newark Public School of Fine and Industrial Art, Newark, N. J., in which the buff brick and limestone have been used in fireproof construction with a flat concrete roof. The windows are double-hung, of wood. Completed August, 1931*

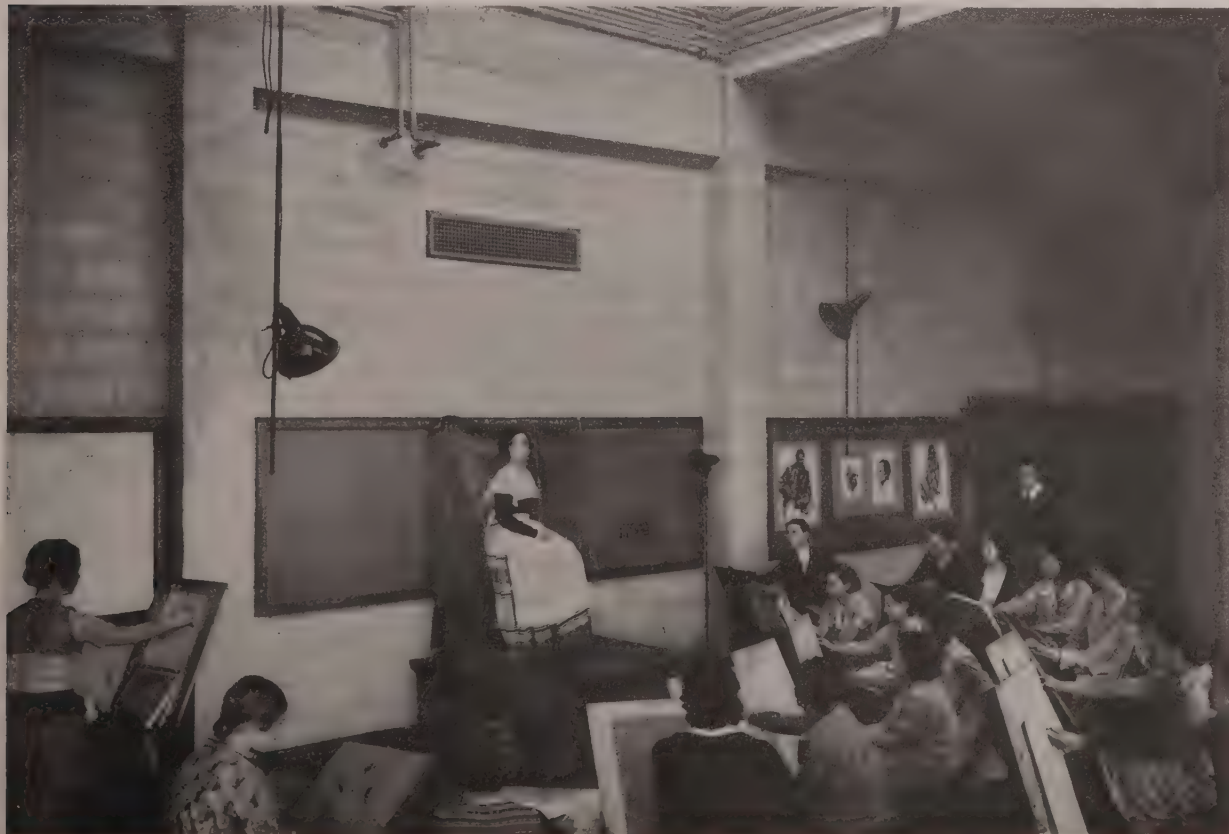




Photographs by George French

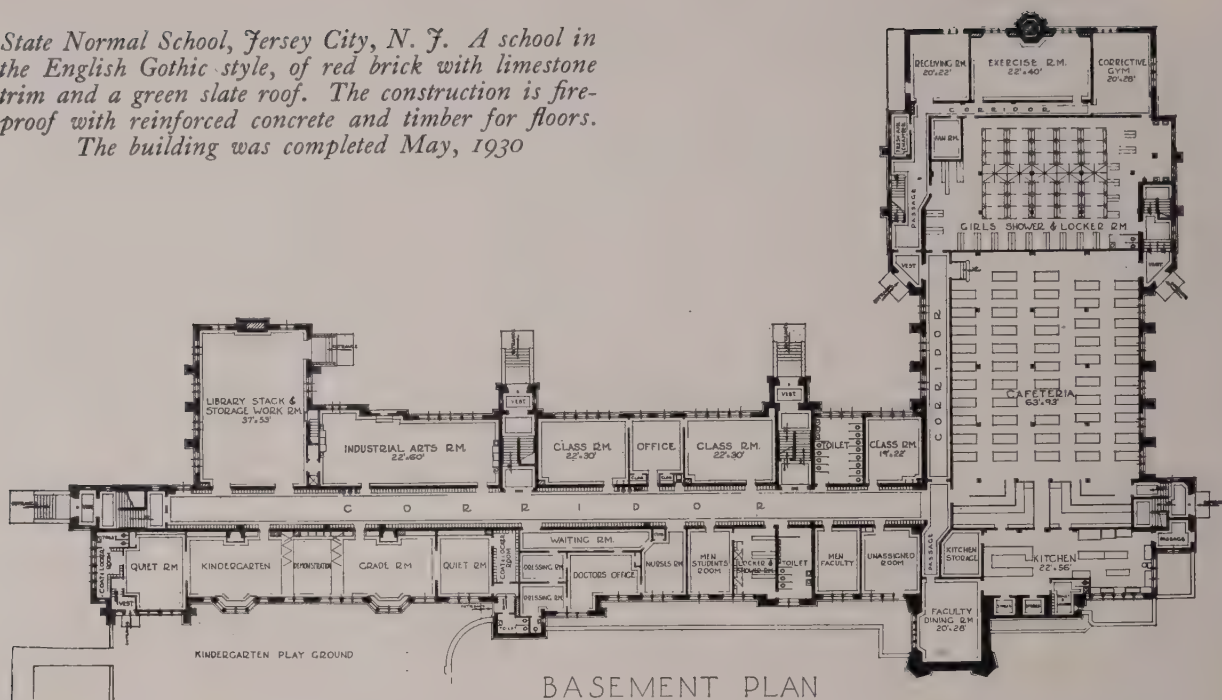
*Auditorium in the Newark Public School of Fine and Industrial Art, seating 700.  
The ornamental plaster ribs are perforated for ventilation*

*Studio for the use of the class in costume model in the same school*





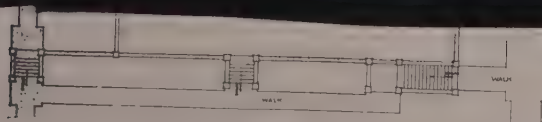
*State Normal School, Jersey City, N. J. A school in the English Gothic style, of red brick with limestone trim and a green slate roof. The construction is fire-proof with reinforced concrete and timber for floors. The building was completed May, 1930*



Photograph by Wurts Brothers



MAY, 1932



FIRST FLOOR PLAN





MAY, 1932

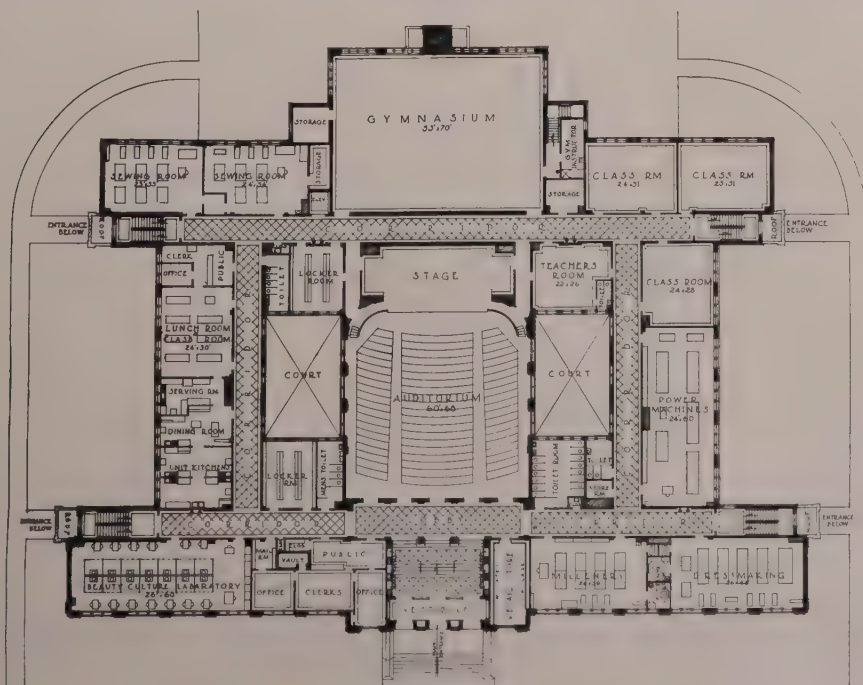
*Detail of the entrance in the middle of the classroom wing, State  
Normal School, Jersey City, N. J.*





Photograph by Richard Averill Smith

*The Essex County Girls Vocational School, Newark, N. J., completed in January, 1930, is a striking example of the present trend in educational development. The plan below and the illustrations following show the marked departure from the traditional "three R's"*







*A class in dyeing in the Essex County Girls Vocational School, Newark, N. J.*

*Photographs by William F. Cone*

*A class in the beauty-culture laboratory*







Photographs by William F. Cone

*Instruction in dental nursing in one of the laboratories*

*Lobby in the same school, where provision is made for instruction in window dressing*



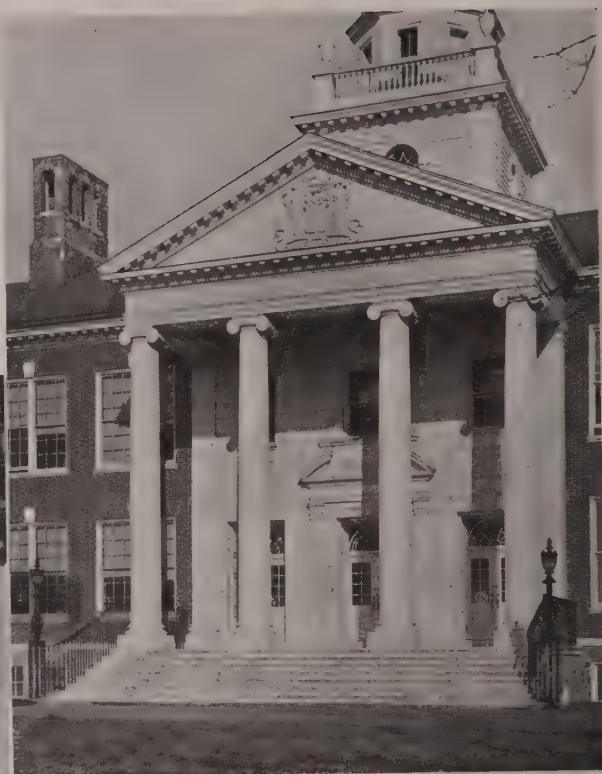


*Main entrance of the State Normal School, Glassboro, N. J. The columns and the wall back of the portico are of marble*

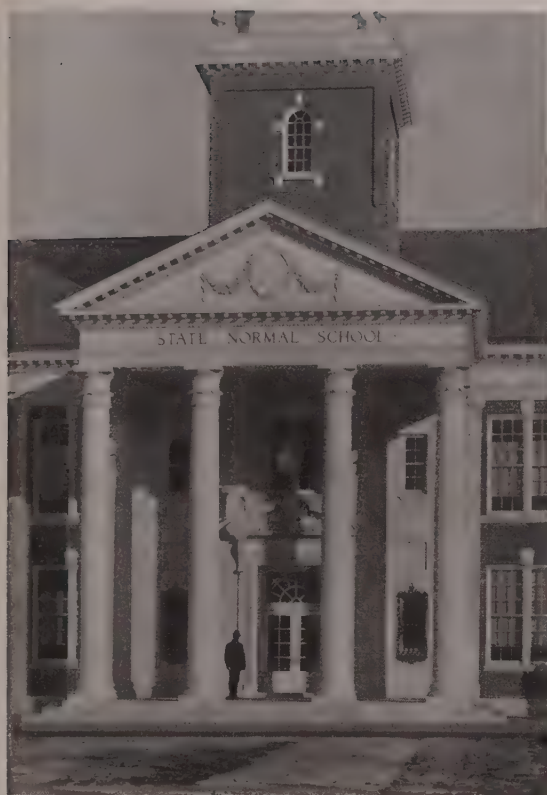
*Photograph by  
John Wallace Gillies*

*Main entrance of Great Neck High School, Great Neck, Long Island. The portico is of limestone throughout*

*Photograph by  
Richard Averill Smith*







*Entrance detail of State Normal School, New Britain, Conn. Here, as in all of these porticoes, the wall at the back is of the same material as the columns*

*Photograph by  
Drix Duryea*

*The main entrance portico of Vernon L. Davey Junior High School, East Orange, N. J. The portico is of limestone, the main cornice of the building and the cupola being sheathed with copper*



*Photograph by  
Richard Averill  
Smith*





Photograph by Richard Averill Smith

*Here in the Essex County Boys Vocational School, Bloomfield, N. J., completed in September, 1931, is another example of the extent to which vocational training is changing school building design*





Photograph by Richard Averill Smith

*A detail of the front entrance, Essex County Boys Vocational School. A light buff brick has been used with limestone trim. The construction is fireproof, with a concrete roof*





Photographs by William P. Cone

*Training garage mechanics*  
VOCATIONAL TRAINING IN SOME OF ITS MANY BRANCHES  
*Students at work in the aviation shop*



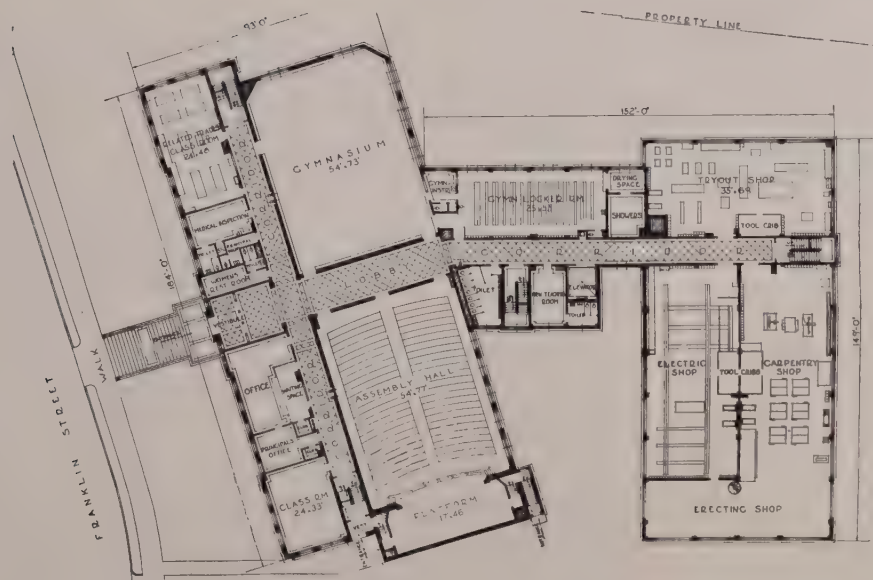
*In the machine shop*  
VOCATIONAL TRAINING IN SOME OF ITS MANY BRANCHES  
*The chef's class in the cafeteria kitchen*



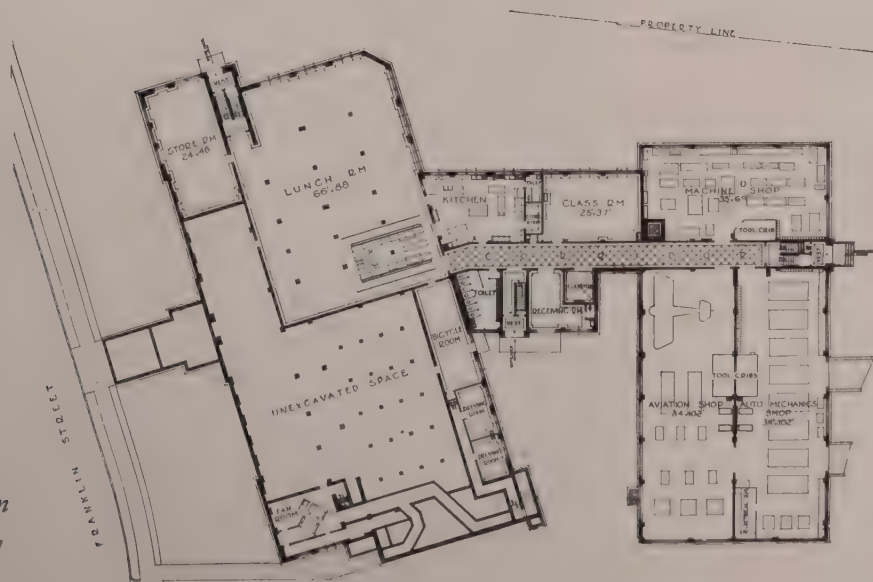




*Second-floor plan*



*First-floor plan*



*Ground-floor plan*

*Essex County Boys Vocational School, Bloomfield, N. J.*





*An entrance detail of the Montrose School, South Orange, N. J., built of red brick and limestone*

*Entrance detail of West Side High School, Newark, N. J. Here again the architects have used one of their favorite combinations, red brick with limestone trim, in a fireproof structure. It was completed in 1929*

*Photographs by  
Richard Averill  
Smith*





*Entrance detail of Thaddeus Stevens Junior High School, Williamsport, Pa. The upper floor of towers such as this is usually given over to the use of some extra-curricular activity*



*Entrance detail of Summit High School, Summit, N. J.*



*Photograph by  
D. Vincent Smith*

*Photograph by  
Richard Averill Smith*

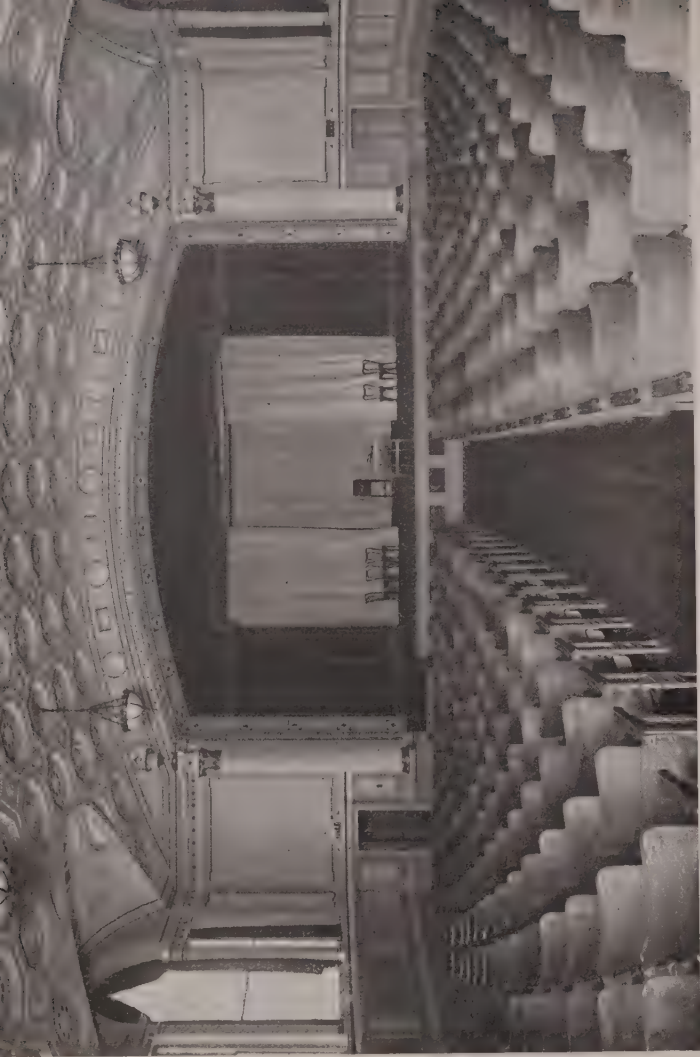
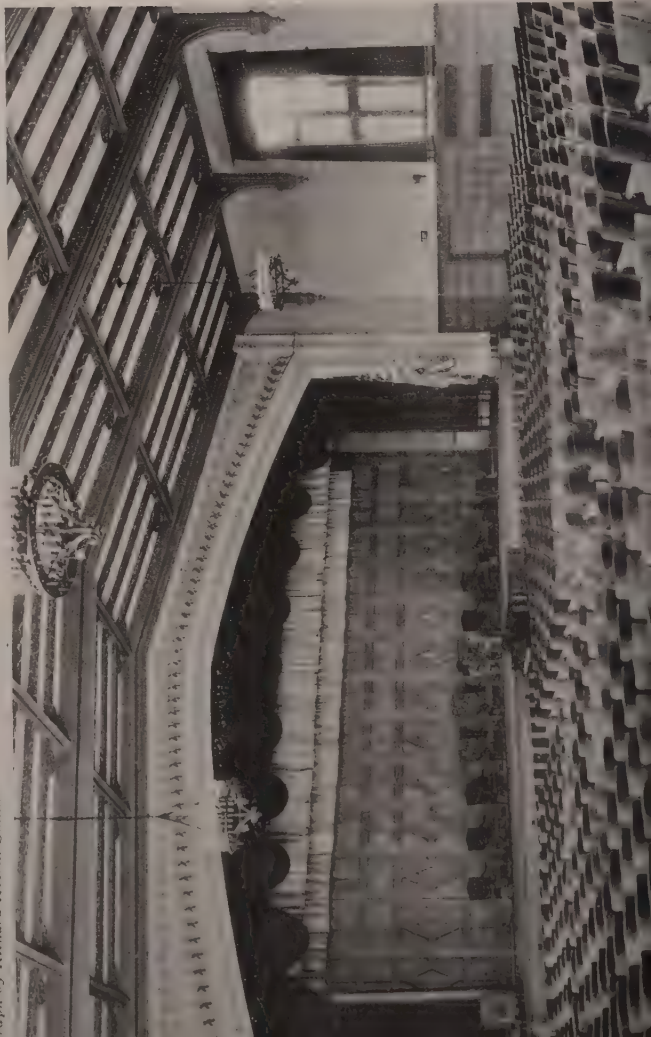




Photograph by William F. Cone    *Auditorium of the Essex County Girls Vocational School, Newark, N. J.*

*Auditorium of the State Normal School, Jersey City, N. J.*

Photograph by Richard Averill Smith



*Auditorium of State Normal School, New Britain, Conn.*

*Auditorium of High School, Greenwich, Conn.*



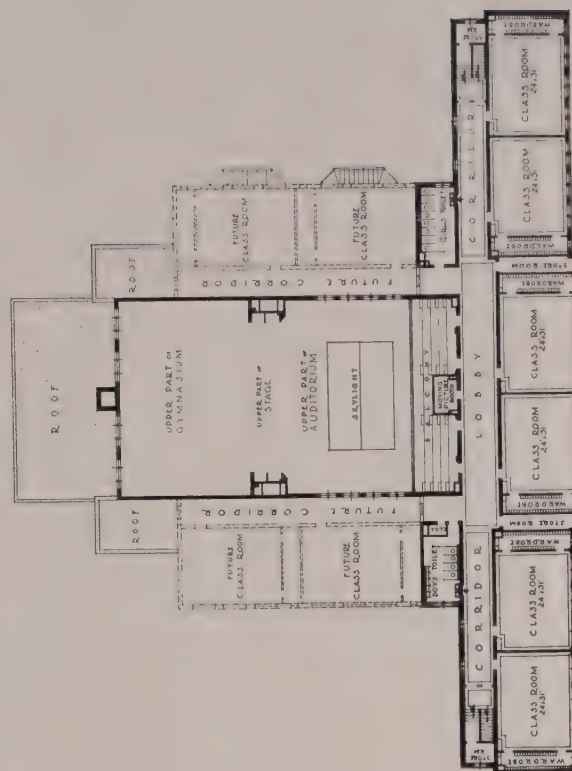
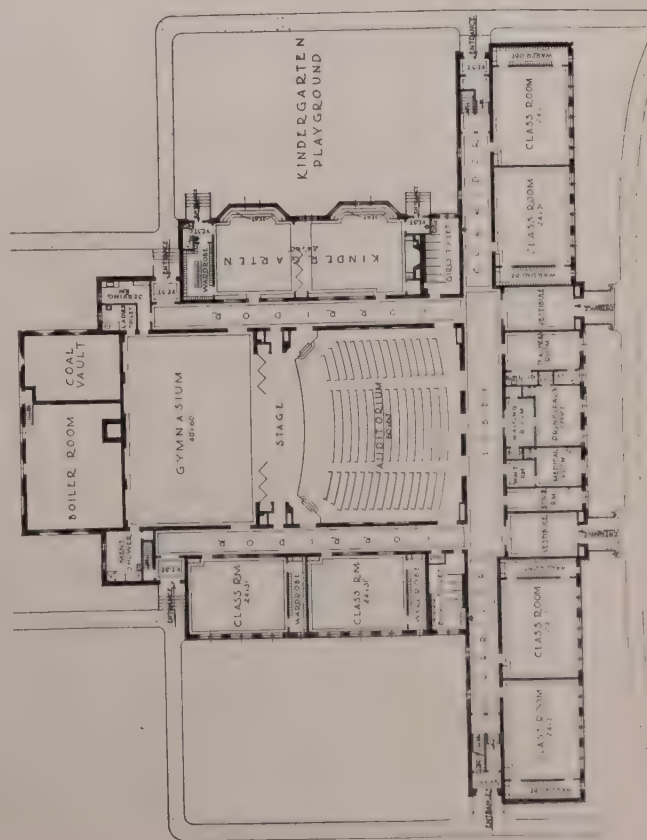
Photograph by Dixie D.





Photograph by Richard Averill Smith

*Clinton School, Maplewood, N. J., built of red brick with limestone trim, and completed December, 1929. The construction is semi-fireproof. Below, plans of first and second floors*



SECOND FLOOR PLAN  
SCALE - 1" = 10'





Photograph by Richard Averill Smith

*Detail of one of the two main entrances. The windows and entrance doorway are of wood, the cornice of copper, painted. Clinton School, Maplewood, N. J.*









*Photograph by Richard Averill Smith*

*Detail of the main entrance, Columbia High School. The building is of fire-proof construction throughout, and was completed in March, 1928*



# Lee Lawrie's Recent Sculpture at Harrisburg

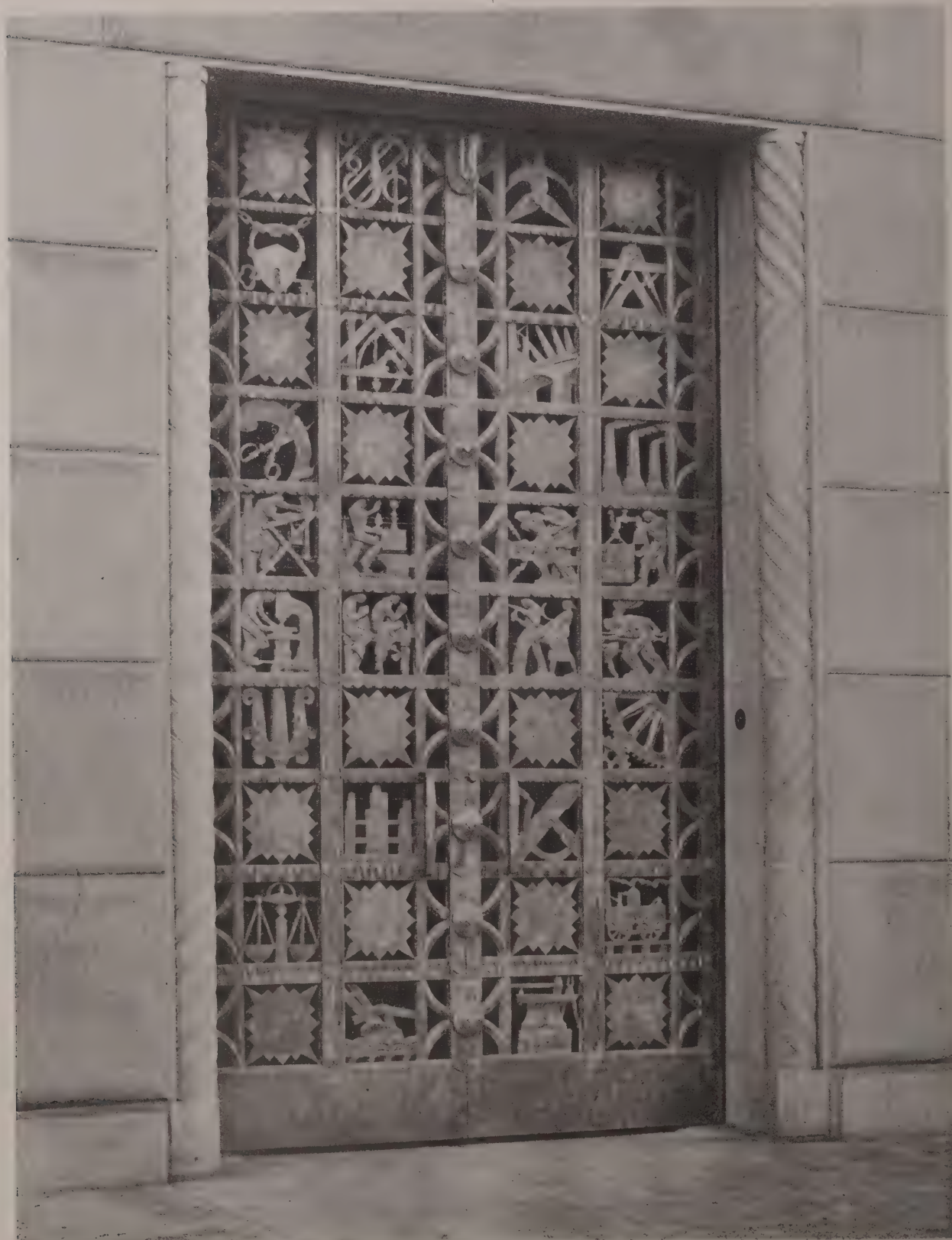
*The Education Building and the pylons and keystone blocks of the Soldiers and Sailors' Memorial Bridge of the Pennsylvania capital, done in collaboration with Gehron & Ross, architects*



*Photographs by Gilkison*

*Bronze doors of entrance to the Forum, in which the sculptor represents man's creative and recreative activities*

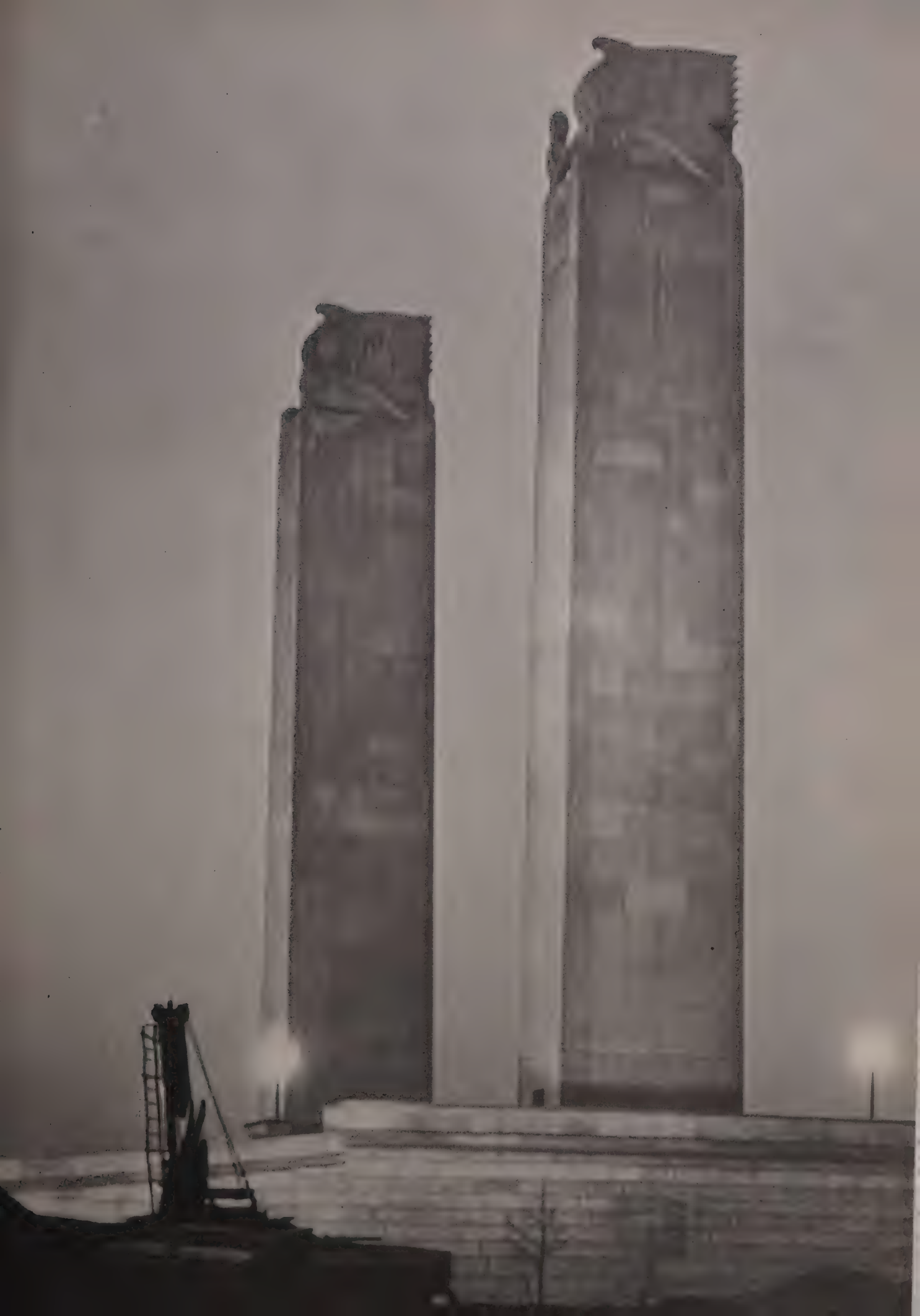




*Bronze gate, main entrance to the Education Building, in which Mr. Lawrie symbolizes modern man's various forms of labor*

*Facing this page are the great pylons of the Soldiers and Sailors' Memorial Bridge*



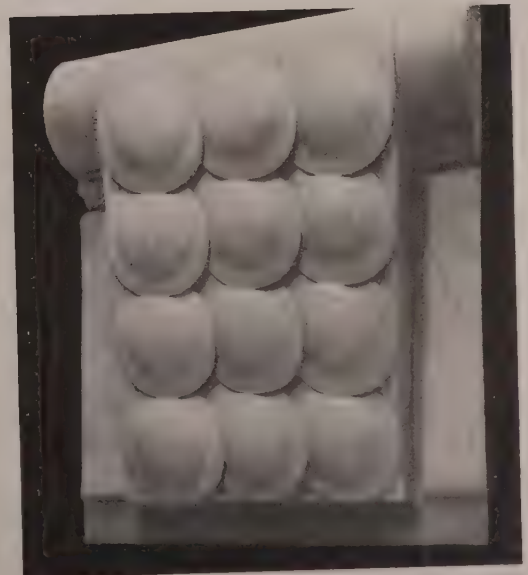
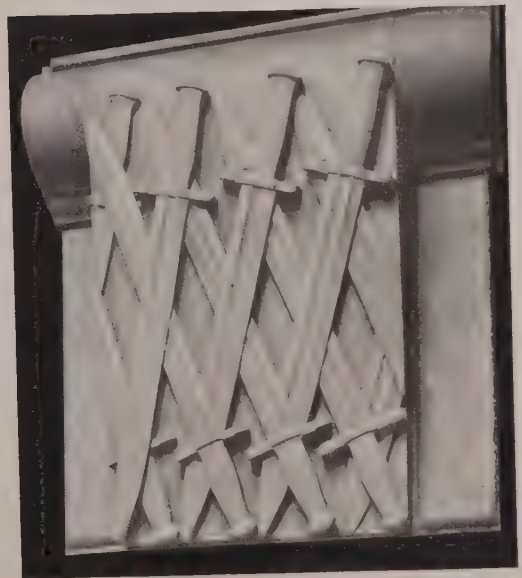
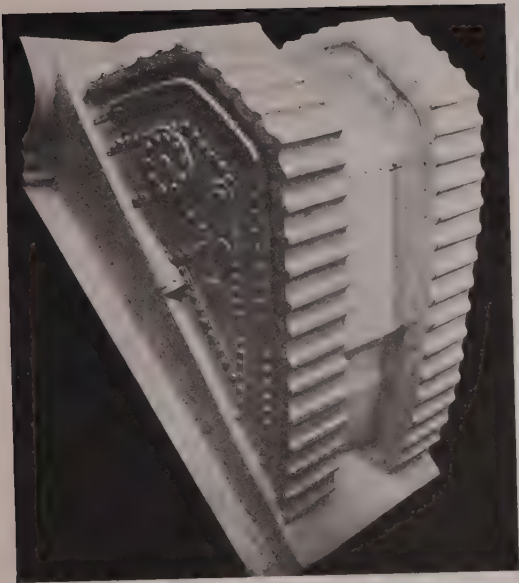




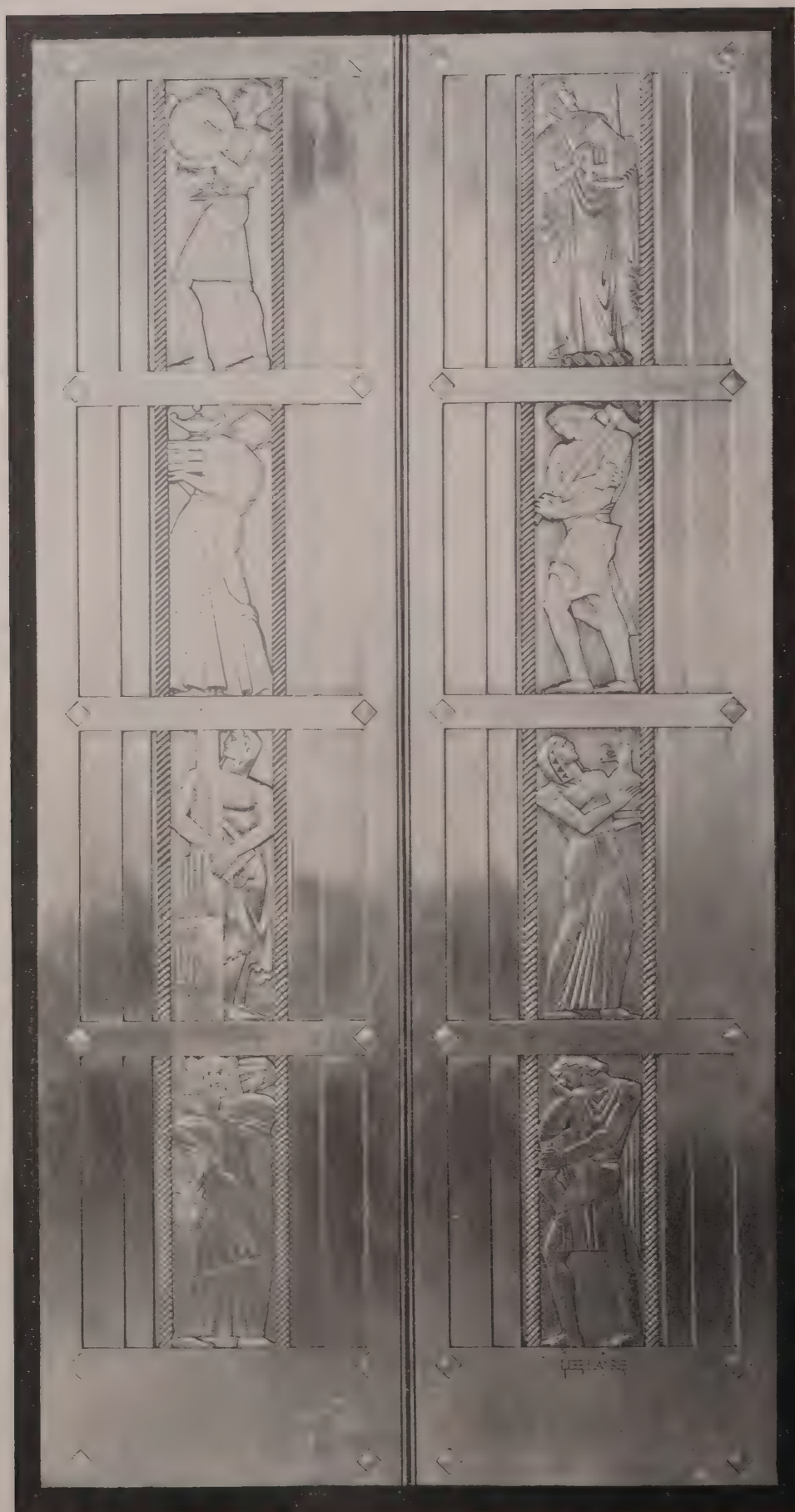


*One of the great eagles topping the pylons. Some idea of the scale of this work may be gained from the photograph over-leaf. The pylons are 147 feet high and 16 by 20 feet at the base. For this bridge and the Veterans' Memorial Bridge, Rochester, N. Y., William Gehron, of Gehron & Ross, architects, received the Architectural League's Silver Medal in Architecture for 1932*





*Mr. Lawrie's  
models of some of  
the keystone  
blocks used in  
the Soldiers' and  
Sailors'  
Memorial Bridge*



*Photograph by John Adams Davis*

*Bronze elevator doors  
in the main-floor lobby,  
Education Building*





# The Architectural Observer



IF you are so fortunate as to be at Blois, and still more fortunate, to be going back to Paris in an automobile, a few kilos to the north-east along the Loire you will have to slow down for a sign which reads "Cour." The paved road rushes by the hamlet itself, but if you are the inquisitive sort and are intrigued by roofs banked up behind groves of plane trees, there is considerable to reward an exploration on foot. The wealth of the architecture is behind high

granary. Timbered members are of course dowelled together.

ST. NEOTS is a fair-sized English town situated in that rather drab district lying to the west and southwest of Cambridge. It has its quota of old pubs, small cottages of note, and a pleasant stream which flows under the name of Hen Brook. There cannot be said to exist any outstanding architectural characteristic in this part of Huntingdon, but occasionally a little detail pops up with something worth noting. Such a case is this dormer, which rises sheer from the face of the first-floor wall. The gambrel roof permits of pretty fair head-room so that the rather narrow dormer functions satisfactorily. When it comes to color, the ensemble is inclined to step out: yellow brick base, rich brown plaster, all woodwork green except windows, which are white, and variegated red tile roof.



walls but the tidbits in plain sight are not to be scoffed at. The drawing shows a bit of a barn with a tile-corbelled cornice and a simple dormer. If there is no absolute necessity for a gutter, this solution of projecting tile one behind the other in straight and dog-tooth courses, may some time prove a handy trick to have up one's architectural sleeve. It will not look as expensive to the contractor's estimator if the specifications state that the architect will be on deck to show the workmen how easily it can be done. There is nothing about the dormer which is unusual except that it is French, and typically so. The forward projection is used for the block-and-tackle connection when hauling up supplies in the



# Architectural News in Photographs



*This year the New York Chapter, A. I. A., gave its apartment-house medals to Vincent Astor, owner of 120 East End Avenue, illustrated above, of which Charles A. Platt was architect, and also to the Phipps Houses, Inc., Long Island City, designed by Clarence S. Stein. The Phipps six-story elevator units are illustrated below*



*When in February we published the Chicago Board of Trade, a satisfactory exterior of the completed structure was not available. Here is one of the best efforts to picture it through the narrow canyons by which it is surrounded. Holabird & Root, architects*







*Rollins College, Winter Park, Fla., has just dedicated the Annie Russell Theatre, shown in the foreground (Kiehnel & Elliott, architects), and the Knowles Memorial Chapel beyond, of which Cram & Ferguson are the architects*



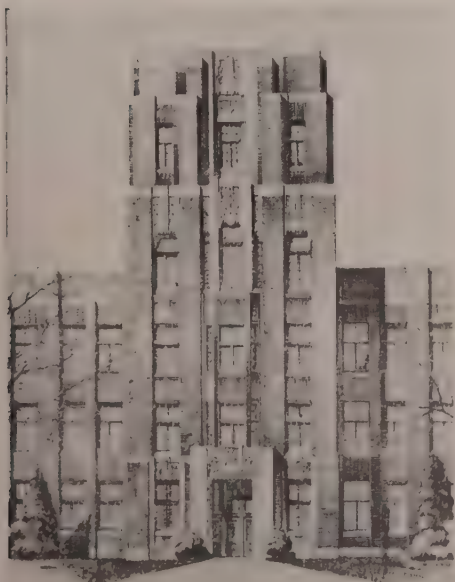
*Preliminary perspective of the accepted design for the new capitol of North Dakota. Bell de Remer & W. F. Kurke, architects; Holabird & Root, associate architects*



*A new dormitory and dining-hall for the American Junior College, Ellenico, Greece, now under construction. Thompson & Churchill, architects, of New York*



*Preliminary perspective of the new post-office for Lake Forest, Ill. Ralph Milman and A. S. Morphett, architects, formerly associated with the late Howard Shaw*



*Preliminary elevation study in pencil, main entrance, Rufus King High School, Milwaukee, Wis. G. E. Wiley, school board architect*



*Below, the winning design for the monument at Appomattox, Va., to commemorate the termination of the war between the States. Harry Sternfeld and J. Roy Carroll, Jr., architects; Gaetano Cecere, sculptor*

## BOOK REVIEWS

**THREE McINTIRE ROOMS FROM PEABODY, MASSACHUSETTS.** By EDWIN J. HIPKISS. 93 pages, 9¾ by 12¾ inches. Illustrations from photographs and measured drawings. Boston: 1931: Museum of Fine Arts. \$2.75.

Here are superb photographs of the architectural details and contemporary furnishings in three rooms from "Oak Hill," built 1800-1801 for Captain Nathaniel West. There are those familiar with Samuel McIntire's work who believe these rooms to be the best things he ever did. With the photographs there are seven measured drawings of the woodwork, reproduced at scale.

**HET EIGEN HUIS.** By IR. J. P. FOKKER. 95 pages, 7½ by 9½ inches. Illustrations from photographs and plans. Amsterdam, Holland: 1931: N. V. Uitg.-Maatschappij "Kosmos." Fl. 4.90.

A selection of suburban houses representing contemporary work in Holland. There are no interiors, and each house is shown by one or two general views and the floor plans.

**KIDDER-PARKER ARCHITECTS' AND BUILDERS' HANDBOOK.** By the late FRANK E. KIDDER. Compiled by a staff of specialists and HARRY PARKER. 2315 pages, 4½ by 7¼ inches. Illustrations from line drawings. New York: 1931: John Wiley & Sons, Inc. \$8.

Here is the eighteenth edition, enlarged, of the indispensable Kidder. Harry Parker, who is now the editor of the Handbook, is professor of architectural construction in the School of Fine Arts, University of Pennsylvania, and a member of the A. I. A.

**SUPPLEMENT TO RECOMMENDED MINIMUM REQUIREMENTS FOR PLUMBING.** Progressive revision, May, 1931, of recommended minimum requirements for plumbing dated 1929. Issued by the Department of Commerce, Building Code Committee. 3 pages, 6 by 9 inches, with 6 folded sheets of diagrams. Washington: 1931: Department of Commerce, Bureau of Standards.

**THE BETTER HOMES MANUAL.** Edited by BLANCHE HALBERT. Preface by RAY LYMAN WILBUR. Introduction by JAMES FORD. 781 pages, 5½ by 8¼ inches. Illustrations from photographs and drawings. Chicago: 1931: The University of Chicago Press. \$3.

Here is an encyclopædia of home building. Miss Halbert was an active figure in the recent Conference on Home Building and Home Ownership called to-

gether by the President, and as research director of Better Homes in America she has had unusual opportunities for gathering together many facts. It would seem that no single question that might arise regarding home ownership, home building and home financing remains unanswered in this comprehensive volume.

**MODERNE NEDERLANDSCHE VILLA'S EN LANDHUIZEN.** By PROFESSOR IR. J. G. WATTJES. 15 pages, 9¼ by 12¼ inches. 419 plates. Illustrations from photographs and plans. Amsterdam, Holland: 1931: N. V. Uitgevers-Maatschappij "Kosmos." Fl. 17.50.

Professor Wattjes gathers together periodically the significant architectural work of his country and puts it into the record. This time it is the small suburban homes that constitute his subject matter. Many of them show some minor detail that is ingenious and pleasing, but the collection as a whole impresses one with the widespread striving for originality and startling form that characterizes so much building, not only in Holland, but throughout the so-called civilized world at the moment.

**HOUSE INSULATION.** Its Economies and Application. Report of the Subcommittee on House Insulation of the National Committee on Wood Utilization. (Nineteenth report of committee's series.) 52 pages, 6 by 9 inches. Illustrations from photographs and drawings. Washington: 1931: U. S. Department of Commerce. 10 cents.

**DOMESTIC COLONIAL ARCHITECTURE OF TIDEWATER VIRGINIA.** By THOMAS TILESTON WATERMAN and JOHN A. BARROWS. Introduction by FISKE KIMBALL. 191 pages, 11 by 14 inches. Illustrations from photographs, measured drawings and full-size profiles. New York: 1932: Charles Scribner's Sons. \$15.

Considering the architectural importance of our early work in Tidewater Virginia, our documents covering the subject have been pitifully inadequate. There is a practical reason for this—the inaccessibility of the monuments themselves. It was only the few within easy reach of Richmond that received a cursory examination by students. This lack has now been remedied by two men who have had unusual opportunity and adequate time for full study and measurement of fifteen houses, dating from the Adam Thoroughgood House, built before 1640, to Blandfield and Menokin, built about 1770. The profession and the antiquarians both owe a great debt to Mr. Waterman and the late Mr. Barrows for a comprehensive and authenticated architectural document.



*Saturday, February 20.*—Keith Schwinley, of Washington, sends me an interesting little snapshot of M. Deneau, reproduced herewith. Schwinley and Julian Levi spent an interesting hour or two with M. Deneau on our Paris pilgrimage of last spring. M. Deneau is the official architect of Rheims Cathedral. As is well known, all public monuments in France have an official architect—usually a Prix de Rome man—without whose sanction no changes can be made in the buildings. M. Deneau's work, however, has been much more constructive, since he has had to deal with the problem of rebuilding Rheims after the damages of war. The Cathedral is, of course, his life work: nothing else is permitted to interfere with his thought of it. In the photograph he is shown with a scale model of the flèche.

*Tuesday, February 23.*—The so-called Radio City, alias Metropolitan Square, is now to be called Rockefeller Centre. "Radio City," however, is not to be dropped entirely, but is now to be applied to the four buildings in which radio activities will predominate. Each building in the group will have its own name.

*Wednesday, February 24.*—There seems to be a confusion of tongues in regard to our housing needs. On the one hand the Mortgage Bankers Association of America, in fighting the proposed Home Loan Bank bill, says that we have too many houses now, and that further new building would deflate rents and sales values of all real estate. On the other hand, Frederick Bigger, chairman of the A. I. A. committee on economics of site planning and housing, quotes Dr. Raymond Unwin as advocating the building of plenty of good and comely dwellings both in Great Britain and in the United States, with the provision, however, that the work should be done in accordance with carefully considered community plans.

To go back to the isolated island parallel, so frequently considered by the economist, would the little group of inhabitants say, "Let us build no more houses, since we all have shelter."? Is it not more likely that, having time and energy to spare, they would say, "Let us build ourselves *better* houses."?

*Thursday, February 25.*—To-night, with the usual pomp and glory of guild robes, the architects, sculptors, painters, and craftsmen dined at The Architectural League, and immediately afterward proceeded to the Fine Arts Building to open the Forty-seventh Annual Exhibition. Julian Levi announced the awards, details of which will be found in connection with the pictorial review on another page. The show is an unusually good one, showing evidences of having been boiled down so far that it contains



## The Editor's Diary



only material of an unusually high degree of excellence. The new scheme of limiting all photographs to certain sizes in black-and-white, uniformly shown in *paspartout* without glass, was on the whole successful, although the very close grouping made it a bit difficult in some cases to pick out the photographs of a certain subject and consider them together.

After a rather hasty inspection of the show, the Levis took twenty-five or thirty of us to their nearby apartment, where the discussion as to the awards and the exhibits continued among the group made up largely of past and present medallists.

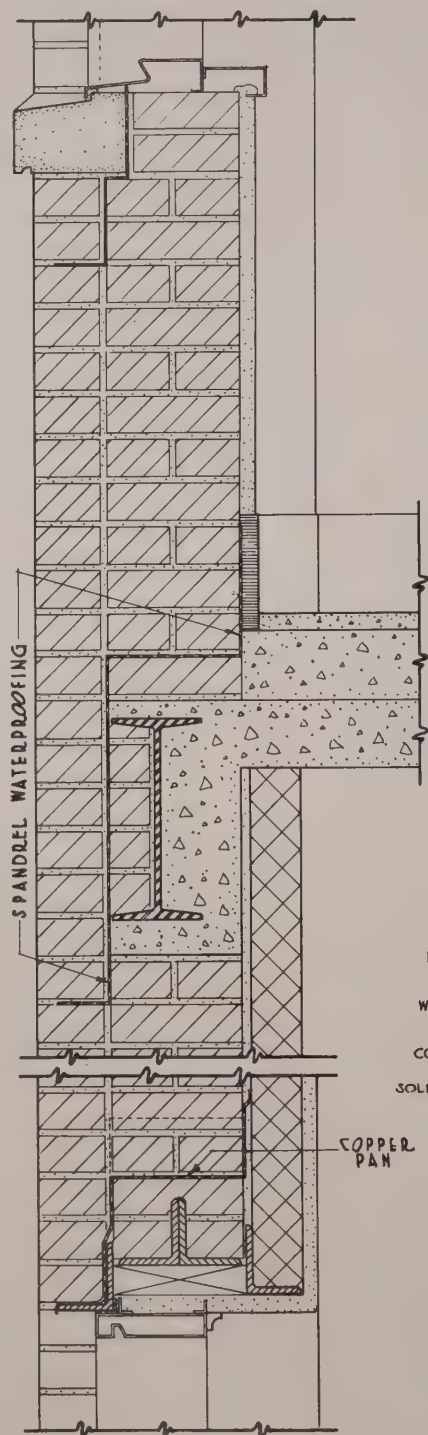
*Sunday, February 28.*—Architecture is looking up. Two resignations from The Architectural League to-day achieve the front page of *The New York Times*. I could name lots of architects who would do more than resign from The League to make the front page. George Howe and William Lescage resigned because of the fact that something of theirs

sent in for The Architectural League Exhibition had been returned unaccepted. Mr. Howe seems to think that refusal of The League to show his work was based upon objection to the modern character of the design. This, of course, could not have been the case, since the show this year, and for some years past, has contained work no less radical. The League, as a matter of fact, has a hard time these days, what with the resignation of the extreme left wing members and the extreme right wing members, many of whom are fully convinced that The League has abandoned everything that is worthwhile in life and made itself unsuitable for the presence of these gentlemen. Architectural progress, I suppose, must be made in this way, by sloughing off the outworn, by testing out the most advanced thought, and thus, two steps forward and one back, slowly marching forward.

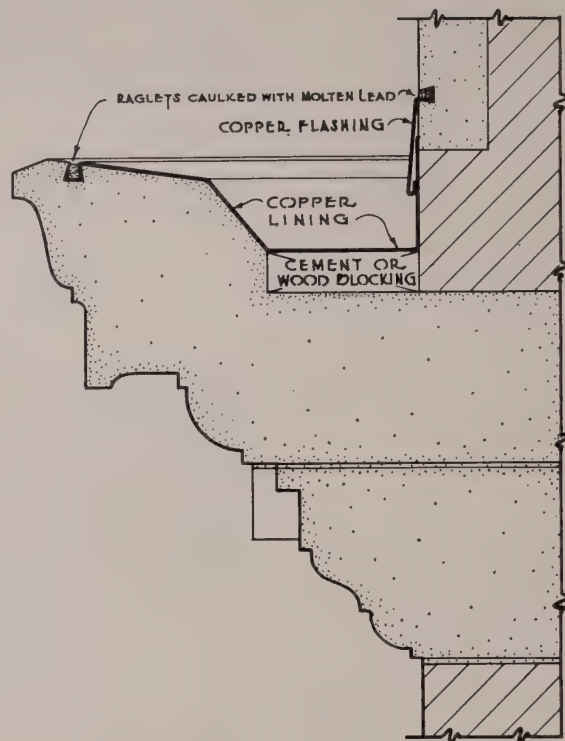
*Monday, February 29.*—Eugene Schoen has been appointed associate professor of architecture, School of Fine Arts, New York University, to direct the newly established course in interior architecture, which indicates that the course will veer towards the left wing rather than to the side of the fundamentalists.

*Tuesday, March 1.*—Dropped in to see Lorimer Rich's competition drawings for the Appomattox Memorial, which go off to-night. It is an interesting problem—the creation of an enduring symbol commemorating the termination of the War between the States. The number of entries will unquestionably be very great, and I suppose the number of sculptured figures of peace could be formed into a regiment. In a memorial like this, to be visited constantly by thousands of people, it seems to me that the simplest form possible is the solution. Into it will be read what is in the mind of the beholder, and it will be all the better for that. The simple form never goes out of date nor becomes tiresome—as witness the Washington Monument.

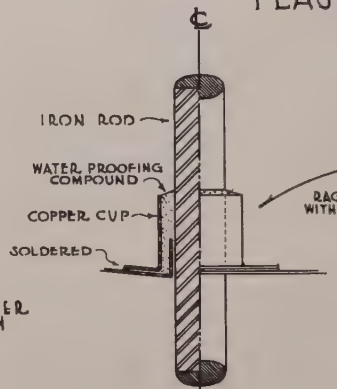
*Thursday, March 3.*—Professor Philip J. Turner, of McGill University, told us to-night at The League the fascinating story of Liverpool Cathedral—of Gilbert Scott's winning it in competition at the age of twenty-one, of his early association with Mr. Bodley in the work, and, after the latter's death, of Sir Gilbert's steady progress alone. It was good to hear that there are still architects in the world like Sir Gilbert, who has made every scale and full-size drawing required for the cathedral. I was particularly interested in the wide joints of his masonry—possibly three-quarters of an inch of mortar—also in the fact that he uses brick cores for his piers. It would be interesting to learn more of how he made sure that there would be no difference in compressive strength between



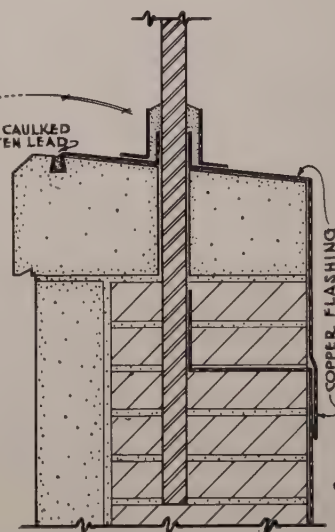
SPANDREL  
WATER-PROOFING



GUTTER LINING AND CAP  
FLASHING FOR STONE CORNICE



SECTION - ELEVATION



IRON BALUSTRADE  
ANCHOR WATERPROOFING

## DETAILS OF WATER-PROOFING

A SERIES OF WORKING DRAWINGS

BY JACK G. STEWART

NO SCALE

PLATE NO 24



the brick core and the sandstone facing with its wide joints.

*Friday, March 4.*—There are some interesting facts about air conditioning in a report recently made public by the Metropolitan Life Insurance Company. In the first place, "It is doubtful whether there exists a single optimum acceptable to a group of individuals. Each individual of the group may have his own optimum, depending upon his physical condition, the condition of his skin, the amount of clothing worn, the nature of work performed and, no doubt, upon many other factors; and this optimum may change slightly from day to day."

"A temperature range between 68° F. and 72° F. is generally accepted as the proper temperature for sedentary workers. The optimum varies with the type and severity of work performed—the heavier the work, the lower the temperature."

"A range of relative humidities between 40 and 60 per cent appears to be practicable and acceptable."

"An air movement of about 25 to 35 linear feet per minute is usually satisfactory."

"In summer, much as the above optimum temperature conditions seem desirable, their maintenance indoors, whenever the prevailing temperature out of doors is excessively high, is objectionable because of the sensations of intense heat or of chill experienced by those leaving and entering the building. Therefore, it has been found impracticable to reduce the indoor temperature more than ten to fifteen degrees below the outside temperature under maximum outside conditions."

"Overcooling in summer is inadvisable, though perhaps not quite so undesirable as overheating in winter."

*Saturday, March 5.*—A year or so ago there was much complaining over the fact that the Supervising Architect's office seemed to be attempting to design practically all the new public buildings, rather than giving these out to private architects to be speeding up the work. The situation has changed. As of January 30, 1932, projects on the boards in the Supervising Architect's office total 106, costing \$14,360,900. In the offices of private architects, on the other hand, at the same date, there were 144 projects, totalling \$106,550,023.

*Monday, March 7.*—A new profession seems to have been born in our midst—the inspecting engineer. In an extensive architectural practice it is easily possible that the job of inspecting work in progress, particularly if it is scattered widely, would become too much of a burden for the architect's own organization. A firm of inspection engineers, on the other hand, by posting men in the industrial centres, could inspect this work at less

cost, more promptly and more frequently. The new profession will probably prove its reason for existence very quickly when the building industry again speeds up to its normal progress.

*Tuesday, March 8.*—E. C. Wolf took me with him to the Town Hall Club today to hear Raymond Hood tell the members something of what architecture is in our generation, and where it is going. Hood made the point that for the first time in many generations we are throwing off the shackles that have bound us in the shape of rules, conventions, traditions and other like restrictions. There is no reason whatever why we should turn our backs upon beauty that has been achieved in the past, but there is also no reason why we should be bound by an ages-old accumulation of rules. After all, our problem is to build shelter economically to fit the amenities of this age, and to satisfy our æsthetic needs as well. Hood stressed the point that some of the things that shock us at the moment will come to be thought beautiful because they are logical and fitting. I am not so sure of that: it seems to me that we have got to build honestly, efficiently, and in line with modern knowledge, but that we must never abandon the attempt to create beauty as we know it now. The next generation may have other ideas of beauty, but, after all, the present generation has got to live with what it builds.

*Wednesday, March 9.*—Clare C. Hosmer joined the architectural editors at luncheon to-day, and answered a lot of questions we had to ask him about the conduct of the Architect's Small House Service Bureau. There is a great deal of misinformation circulated about the Bureau and its works, all of which will doubtless be threshed out on the convention floor at Washington.

*Thursday, March 10.*—The architects and landscape architects gathered in a formidable aggregation at The League to-night to dine amicably and then to fight good-naturedly over the great question of whether or not the architect is to be the big boss. Robert Ludlow Fowler, Jr., first showed some very beautiful lantern slides from European and American gardens; Mott B. Schmidt read a paper on the architect's point of view; a paper by Alfred Geiffert, Jr., setting forth the landscape architect's side of the argument, was read by Richard Newton; Archibald M. Brown summed up for the architects, and A. F. Brinckerhoff, for the landscapists. We seem to be still looking forward to collaboration in its ideal form. Modified by circumstances, it is practised to-day, but collaboration will never achieve its full measure until the two artists have their initial conference with the client and work out the problem as best they can.

The architects are inclined still to hold that the architect must control. If a general practitioner calls in a surgeon, the question of who is the big boss does not arise. It would seem that it should not arise in the ideal practice of the two arts of architecture and landscape architecture.

*Friday, March 11.*—The newspapers have been making something of a fuss over the fact that Henry Wright, at the Museum of Modern Art discussion on Friday, February 19, spoke of the potential slums on Riverside Drive. Now that most of the smoke of battle has blown away, Wright explains what he said, and in doing so emphasizes the pertinency of his term. Here is a slope up from a river bank on which, in our lack of imagination, we have limited the useful area to a thin façade of apartments. It is easy to see what might have been done with this river bank if the land had been under one control. However, it was not, and is not. Wright points out that it is just this type of large, substantially built, specialized dwelling which has supplied many of our world's slums in the past. When the Riverside Drive section descends to a lower income group, remodelled to suit very particularly these needs, they will become potential, and finally actual, slums.

*Saturday, March 12.*—Waterloo Bridge, London, designed by John Rennie, and built from 1811 to 1817, is to be taken down. For over a hundred years it has served London well, but signs of subsidence appeared some years ago, and after detailed examination the bridge has been condemned. All sorts of alternatives were considered, including reconstruction providing for widening to accommodate four lines of traffic instead of three as at present. The final decision is to build a new structure to accommodate six lines of traffic. The work will cost £1,295,000, and will occupy at least five years.

*Monday, March 14.*—Reginald Johnson, who is achieving the standing of a commuter between the Pacific and the Atlantic Coasts, dropped in to-day, full of new and good ideas as usual.

*Tuesday, March 15.*—The John Simon Guggenheim Memorial Foundation appointments have just been announced—fifty-seven fellowships to scholars and artists. Lewis Mumford was given a fellowship to complete his book on "Form." Otherwise there was apparently no recognition of the architects or architectural students. Dancing, painting, sculpture, etching, music, historical and literary research, and the biological and physical sciences seem to interest the jury more than the architectural petitions, of which I know of several that seemed particularly worthy.



*Wednesday, March 16.*—I see that Jean Labatut, professor of design at Princeton, is one of nine winners in a competition conducted by the City of Paris to determine the best way of developing the city plan in future. Professor Labatut was associated with Paul and Georges Millochau.

The city plan movement is active these days. Philadelphia's new one was made public to-night—the result of three years of study by two hundred experts.

*Thursday, March 17.*—An unusually large number turned out to-night at The League to hear Eugene Steinhof, professor of architecture and decorative arts in Vienna, tell about his new theories of teaching architecture. I was unable to follow him in the depths of his philosophical remarks concerning the differences in aspirational values of roof shapes, but there was great stimulus, as both Harvey Corbett and Lee Simonson brought out, in his way of regarding the architect's problem as one of enclosing space. By means of transparent models and constant measurement of existing rooms, he teaches his students to think in terms of space rather than as a plan pattern or a decorative elevation. After all, as Lee Simonson summed up, our great difficulty at the moment lies in finding out what sort of life we want to live. If we can determine that in any particular phase, it should be comparatively easy to design architecture to house that kind of life.

*Saturday, March 19.*—Just as we reach the point in our æsthetic progress where we frown at artificial ageing and weathering as an aid to the finished appearance of materials, the experts announce that they now know how to give copper and its alloys its ultimate green patina immediately. A few years ago we were not averse to sagging our roof ridges, bumping our roof surfaces, and in other ways simulating old age in a building. To-day, however, the attitude of the architect is drifting away from these affectations. A few years ago any of us would have seized upon the opportunity of giving copper its fine permanent green coloration, whereas now, under the influence of the modernists and the functionalists, we are perhaps more interested in keeping, as long as possible, its bright metallic lustre. However that may be, laboratory research by the copper industry reveals that the patina developed on copper and its alloys by natural weathering is principally the basic sulphate of copper, rather than a basic carbonate of copper which had been thought responsible.

*Monday, March 21.*—The New York Chapter met at dinner to-night and discussed the report of a committee appointed to draw up a new statement of

what constitutes architectural practice, including the intricate matter of fees. Most of the elder statesmen were present, and after considerable tinkering with small words and commas, the meeting decided that after all it was not a good time to bring out any new formulas, and laid the whole matter on the table.

*Tuesday, March 22.*—Archibald Brown gave one of the practically endless chain of tea parties for the unemployed draftsmen this afternoon at River House. Some of the photographs of this apartment were on view at the Architectural League Exhibition, but I am afraid no photographs can convey the full flavor of the apartment, which achieves just the happy medium in a treatment that is fresh, daring, but never verging on the bizarre.

*Thursday, March 24.*—I wonder whether as a people we are becoming wholly indifferent to the appeal of the romantic, the historical, and the traditional among our architectural landmarks. Is the wave of utilitarianism and present-day efficiency leaving us without such affection for the monuments of earlier epochs? At the moment some of those who have not lost this respect and affection are urging that the second oldest mint in the United States, established in 1835 at Charlotte, N. C., be preserved rather than, as proposed, torn down to make way for an addition to the United States post-office. Leicester B. Holland, chief of the Division of Fine Arts, Library of Congress, and chairman of the Committee on Preservation of Historic Buildings, A. I. A., is on the job trying to preserve this landmark. He warns us also that in Charleston the Manigault house is in danger, that in Philadelphia the Powel house has just been saved through the activity of Miss Frances A. Wister, although before its rescue a room had been sold to the Metropolitan Museum, and another to the Pennsylvania Museum of Art. Moreover, the Baltimore Art Museum has recently installed as a memorial gift a room taken from "The Abbey" at Chestertown on the eastern shore of Maryland, despite frantic efforts of the locality to retain it in place. Our museums, moved possibly by the consideration of the greatest good for the greatest number, seem to be among the chief offenders in the dismantling or destruction of our most prized architectural heritages.

*Friday, March 25.*—Poor old Diana of the old Madison Square Garden pinnacle is having a hard time of it. Taken down when the New York Life Insurance Company demolished the Garden to put up its new building, she has been having her face lifted and other minor beauty treatments seeking to repair the damages caused by storms. St. Gaudens's statue was presented to the Pennsylv-

vania Museum of Art, Dr. Fiske Kimball having undertaken to find a suitable resting-place for the famous weather-vane somewhere in Fairmount Park. Having been hounded from one place to another most of her life, Diana is not to be allowed to rest in peace now. The Rev. Mary Hubbert Ellis, pastor of the Primitive Methodist Church, chairman of the youth protection committee, vows that her committee will do something to prevent Diana's nakedness being observed by the school children of Philadelphia.

*Monday, March 28.*—An anonymous correspondent shows astonishing ingenuity in suggesting questions for discussion in *The Diary*. I wish he had expended some of his ingenuity in solving some of the topics he suggests, such as: Should an architect be told, and if so by whom, that he has no right, either from the standpoint of his own or his own client's best interests, to proceed with and blunder through a kind of work in which he has had no previous experience? Should the "practice" be taken out of the practice of architecture? Should the architect be compelled to do his own practising while he is being trained in an office, so that when he starts in for himself he will not have to practise on his clients? Can a one-man firm deliver full and proper architectural services—to which my correspondent suggests the possible answer that he can if he is in a small community where the demands are not large and he is satisfied to do a small amount of work per year.

*Tuesday, March 29.*—Personally I had never heard of the empirical practice of sweetening mortar. In a paper presented before the sugar division of the American Chemical Society in New Orleans, Drs. Gerald J. Cox and John Metschl of the Mellon Institute show that not only does the addition of sugar in the amount of six per cent of the quick-lime content produce a tensile strength sixty per cent greater than sugarless mortar, but that the use of sweetening goes back to the time of the Roman builders. The sugar is mixed with the water, not with the lime, before slaking.

*Wednesday, March 30.*—Dropped in to see Lee Lawrie and found him busy as usual on many stimulating things: Rockefeller Centre, the Chicago World's Fair, and the Cathedral of St. John the Divine, among others.

*Thursday, March 31.*—Lunched with Henry Pratt Fairchild, David Coyle, and Dean Dunham of the Harvard School of Business Administration, unburdening ourselves of our respective convictions as to what is wrong with the world.



❖ 1926  
DORMER WINDOWS  
SHUTTERS AND BLINDS

❖ 1927  
ENGLISH PANELLING  
GEORGIAN STAIRWAYS  
STONE MASONRY TEXTURES  
ENGLISH CHIMNEYS  
FANLIGHTS AND OVERDOORS  
TEXTURES OF BRICKWORK  
IRON RAILINGS  
DOOR HARDWARE  
PALLADIAN MOTIVES  
GABLE ENDS  
COLONIAL TOP-RAILINGS  
CIRCULAR AND OVAL WINDOWS

❖ 1928  
BUILT-IN BOOKCASES  
CHIMNEY TOPS  
DOOR HOODS  
BAY WINDOWS  
CUPOLAS  
GARDEN GATES  
STAIR ENDS  
BALCONIES  
GARDEN WALLS  
ARCADES  
PLASTER CEILINGS  
CORNICES OF WOOD

❖ 1929  
DOORWAY LIGHTING  
ENGLISH FIREPLACES  
GATE-POST TOPS  
GARDEN STEPS  
RAIN LEADER HEADS  
GARDEN POOLS  
QUOINS  
INTERIOR PAVING  
BELT COURSES  
KEYSTONES  
AIDS TO FENESTRATION  
BALUSTRADES

❖ 1930  
SPANDRELS  
CHANCEL FURNITURE  
BUSINESS BUILDING ENTRANCES  
GARDEN SHELTERS  
ELEVATOR DOORS  
ENTRANCE PORCHES  
PATIOS  
TREILLAGE  
FLAGPOLE HOLDERS  
CASEMENT WINDOWS  
FENCES OF WOOD  
GOTHIC DOORWAYS

❖ 1931  
BANKING-ROOM CHECK DESKS  
SECOND-STORY PORCHES  
TOWER CLOCKS  
ALTARS  
GARAGE DOORS  
MAIL-CHUTE BOXES  
WEATHER-VANES  
BANK ENTRANCES  
URNS  
WINDOW GRILLES  
CHINA CUPBOARDS  
PARAPETS

❖ 1932  
RADIATOR ENCLOSURES  
INTERIOR CLOCKS  
OUTSIDE STAIRWAYS  
LEADED GLASS MEDALLIONS

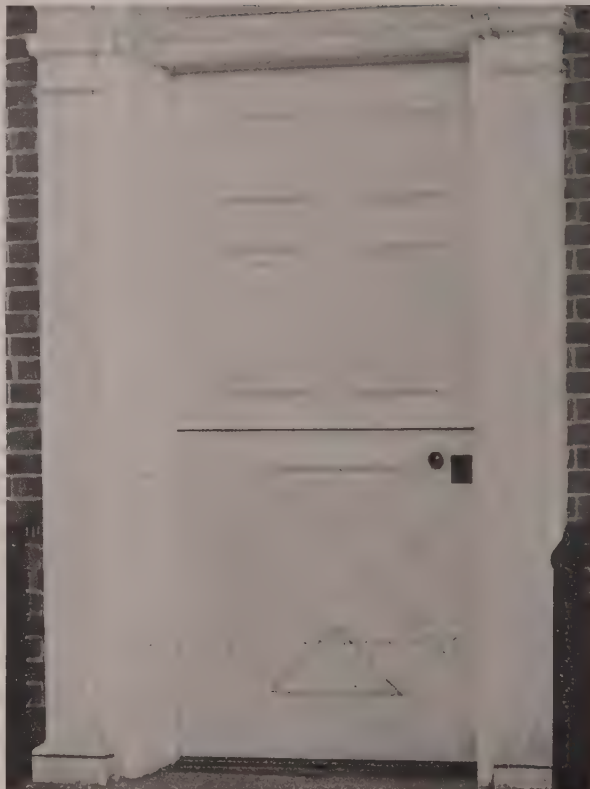
THE SIXTY-SEVENTH IN A SERIES OF COLLECTIONS  
OF PHOTOGRAPHS ILLUSTRATING VARIOUS MINOR  
ARCHITECTURAL DETAILS

# ARCHITECTURE'S PORTFOLIO OF EXTERIOR DOORS OF WOOD



*Subjects of Previous Portfolios Are Listed at Left*

*Forthcoming Portfolios will be devoted to the following subjects: Metal Fences (June), Hanging Signs (July), Wood Ceilings (August), Marquises (September), Wall Sheathing (October), and French Stonework (November). Photographs showing interesting examples under any of these headings will be welcomed by the Editor, though it should be noted that these respective issues are made up about six weeks in advance of publication date.*

*Roger H. Bullard**Heathcote Woolsey**Eric Kebbon**Cameron Clark*





*Francis A. Nelson*



*Alfred A. Scheffer*

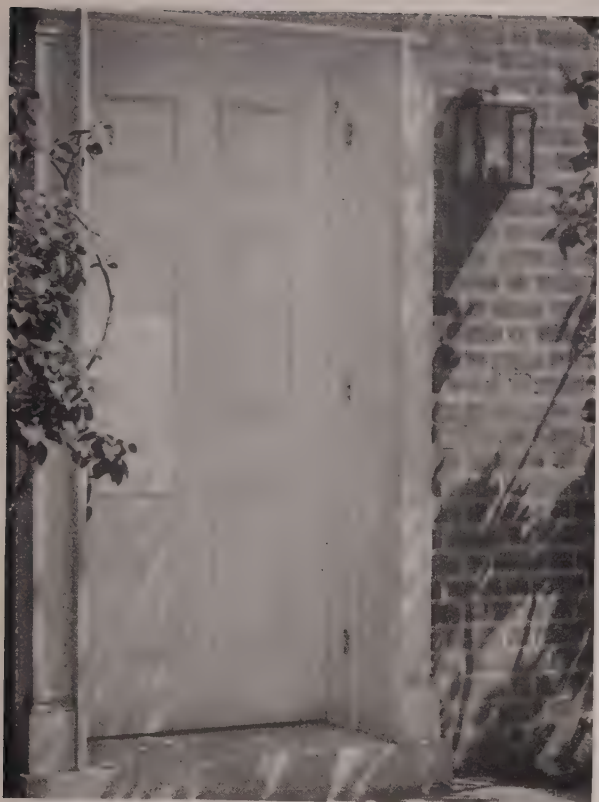
*Putnam & Cox*

*Albert Kahn*



*Dwight James Baum**John Mead Howells**James Renwick Thomson**Roger H. Bullard*





*Charles W. Walker*

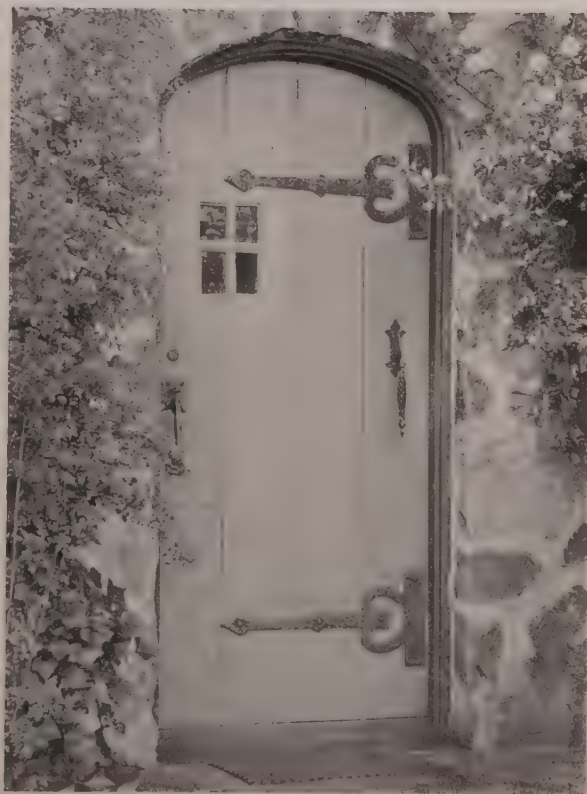


*Wesley S. Bessell*

*Pennington & Lewis*



*Carleton A. Parker*



*Godley & Sedgwick**Frederick J. Sterner**George Washington Smith**From Stockholm*





*A carved door in France*



*Murphy & Olmstead*

*Walker & Eisen*

*Gordon B. Kaufmann*





*John D. Atchison*

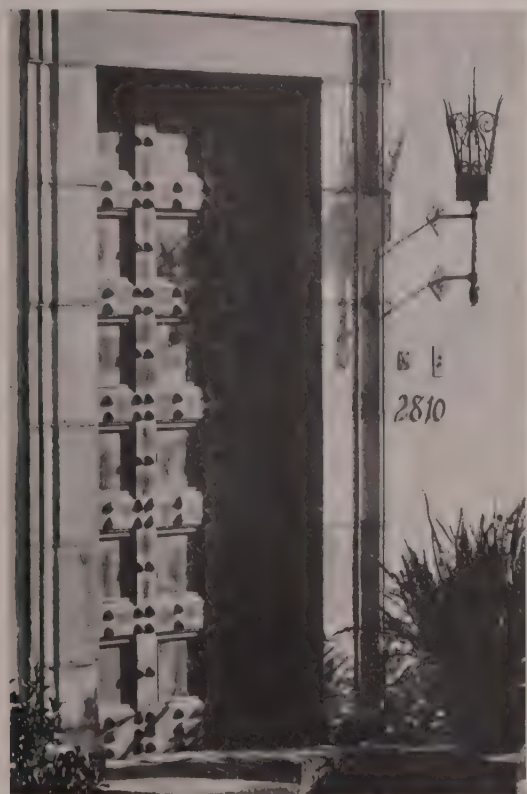


*V. L. Pierson*

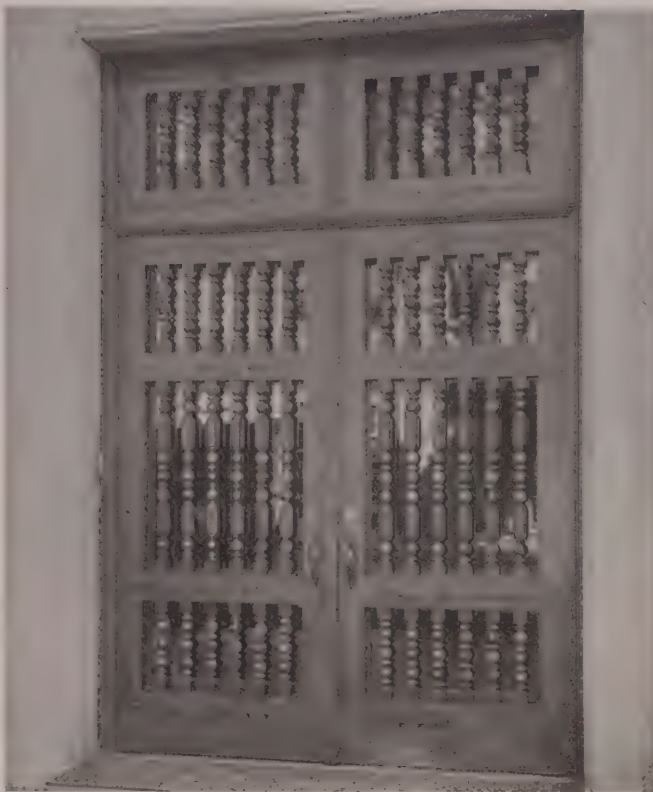
*Frank Rashe      Stiles O. Clements*







*Pierpont and Walter S. Davis*



*Boris Dorfman*

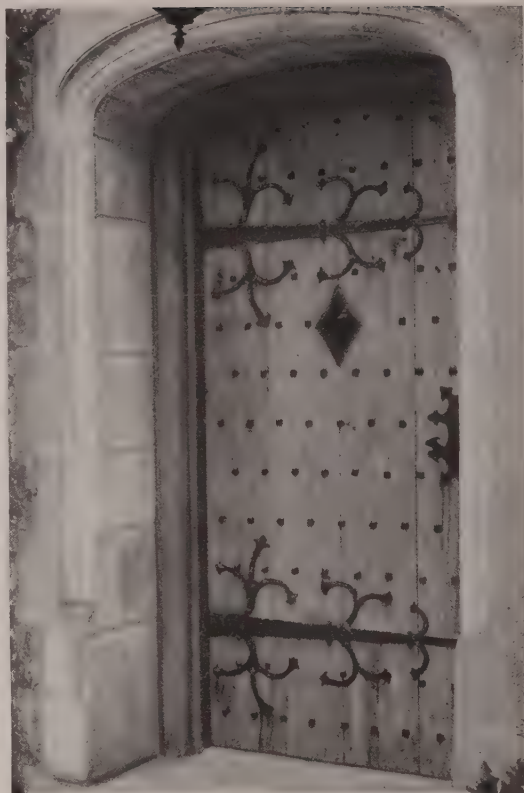
*Grover Loening*

*H. H. Green & Henry W. Hall*





*Frank J. Forster*



*Lewis Bowman*

*Lewis Bowman*

*Andrew J. Thomas*







*Roger H. Bullard*



*Engineering Department, Southern  
California Telephone Company*

*Dwight James Baum*

*Office of John Russell Pope*





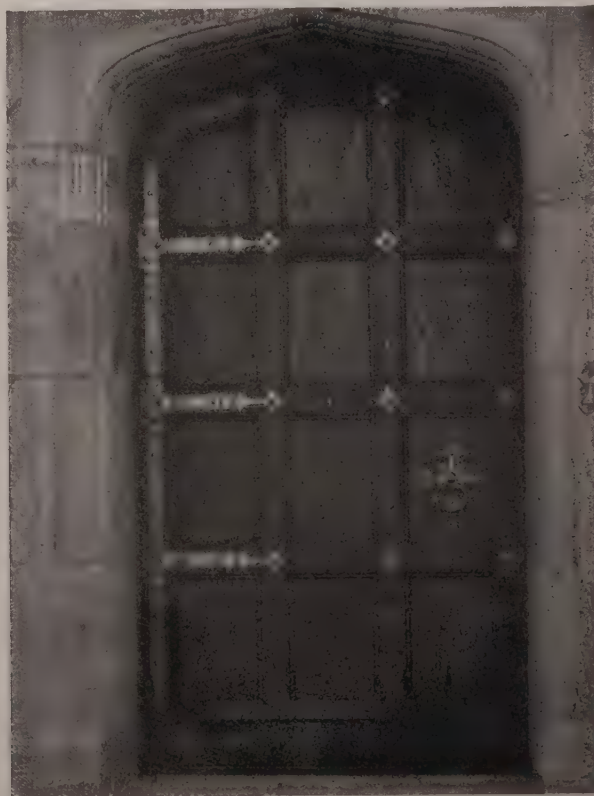
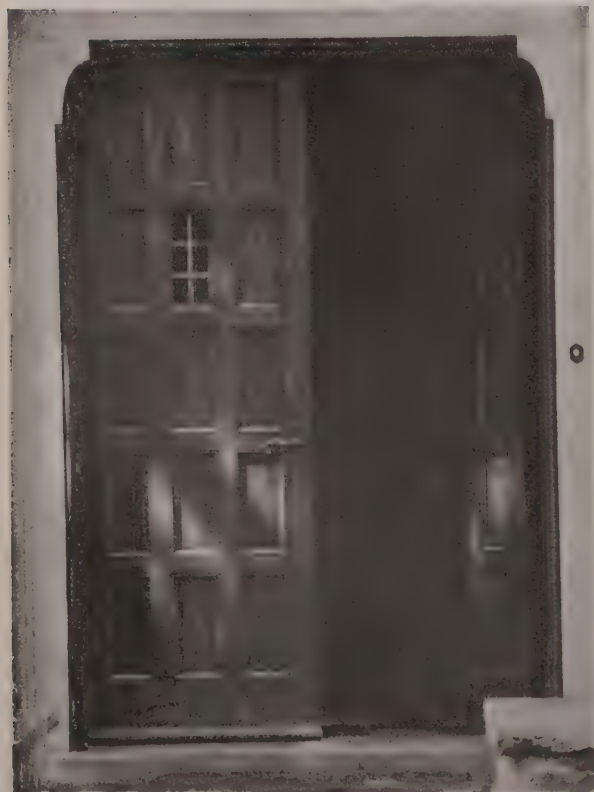
*Frank J. Forster*



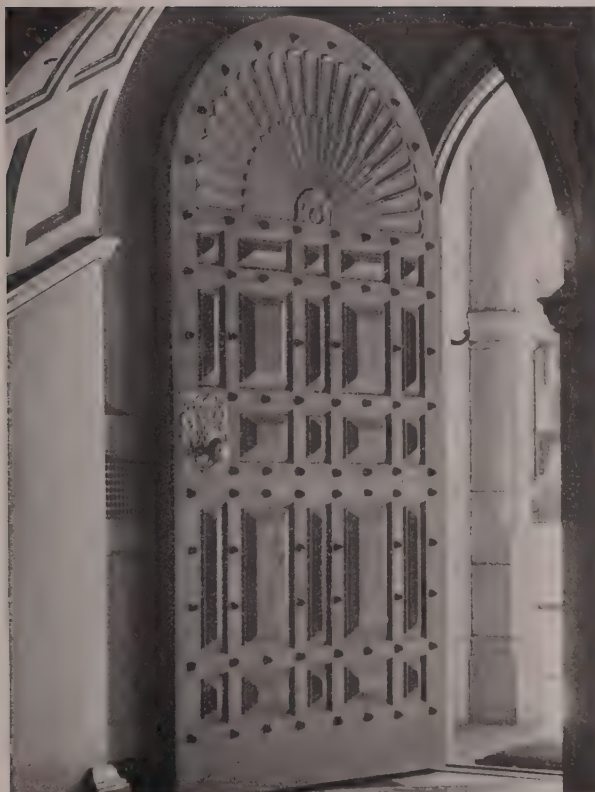
*Frank J. Forster, R. A. Gallimore*

*Alfred Mausolff*

*Carl A. Ziegler; Hardware by The Iron-Craftsmen*







*Lewis Bowman*

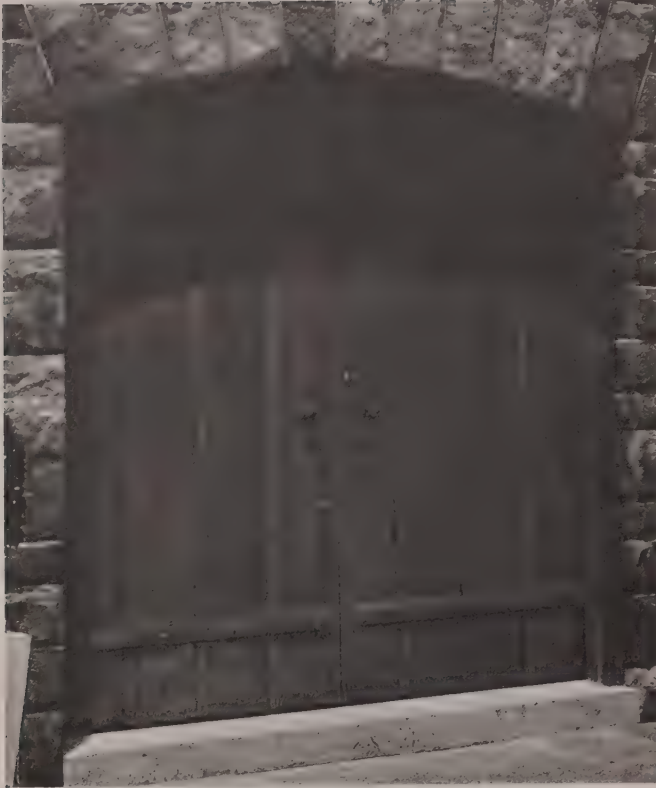


*I. N. Phelps Stokes*

*Rural England*

*Walker & Gillette*

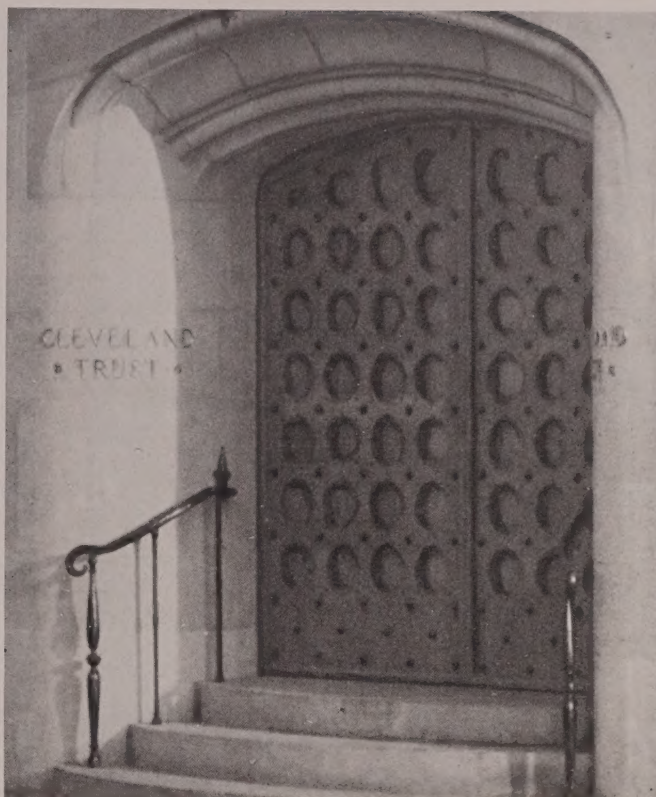


*Herbert A. Magoon**Office of John Russell Pope**Herman Brookman**Lavenham, England*





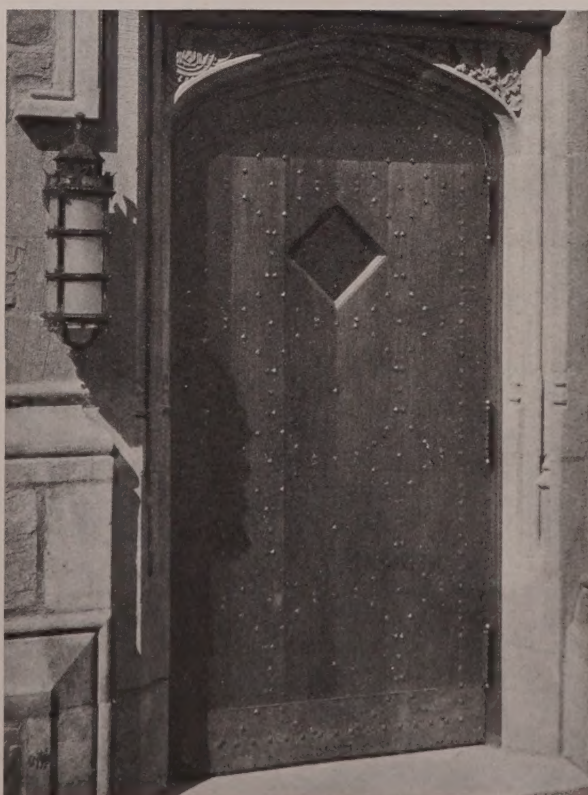
*Henry D. Dagitt & Sons*



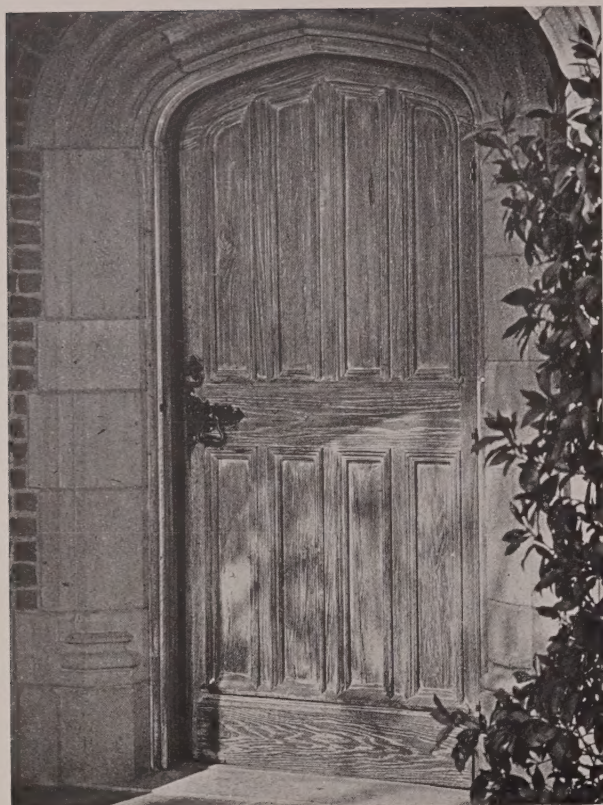
*Andrew J. Thomas*

*Winchester, England*

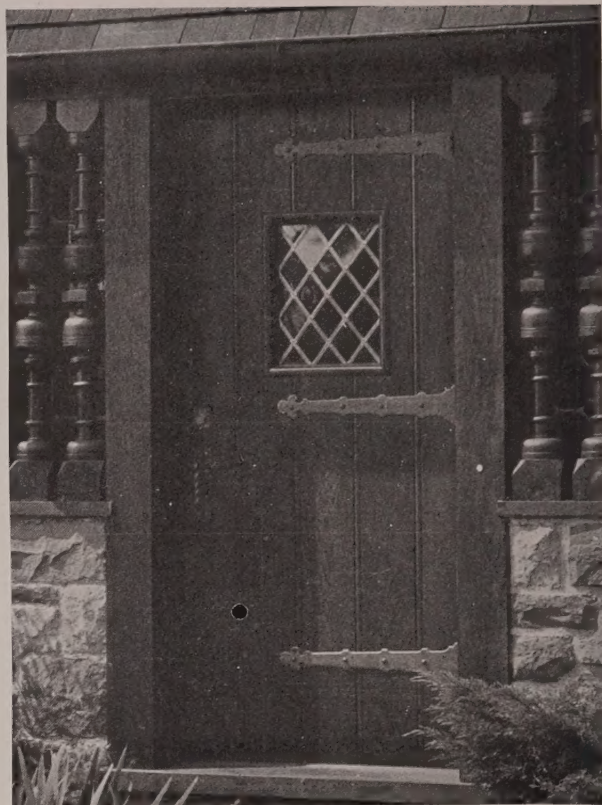
*James Gamble Rogers*





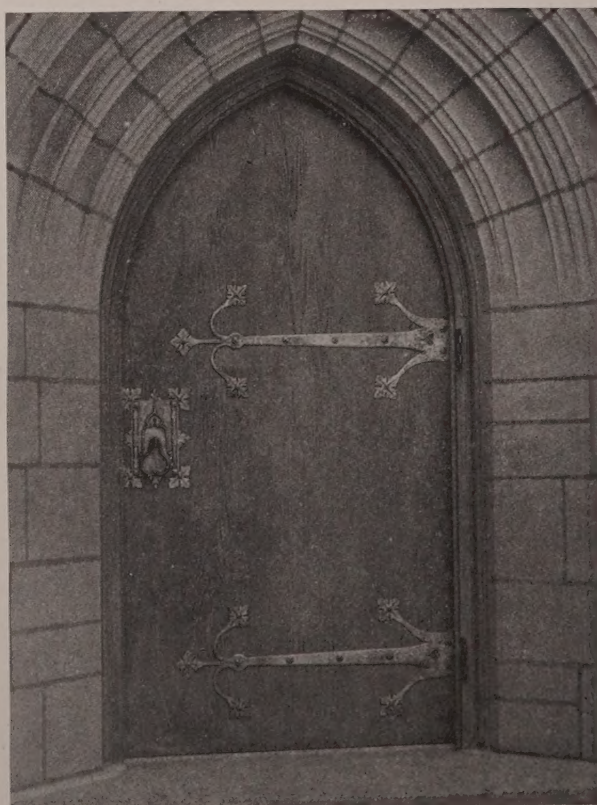
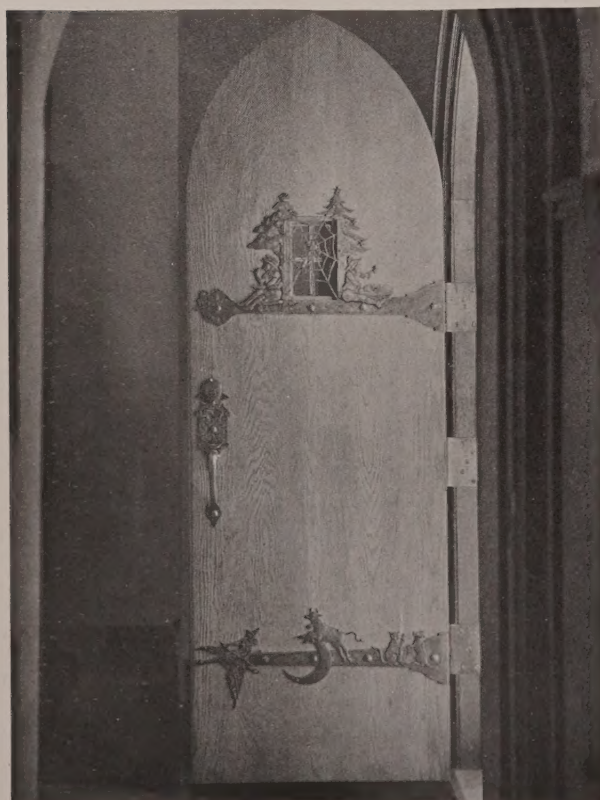


*Office of John Russell Pope*



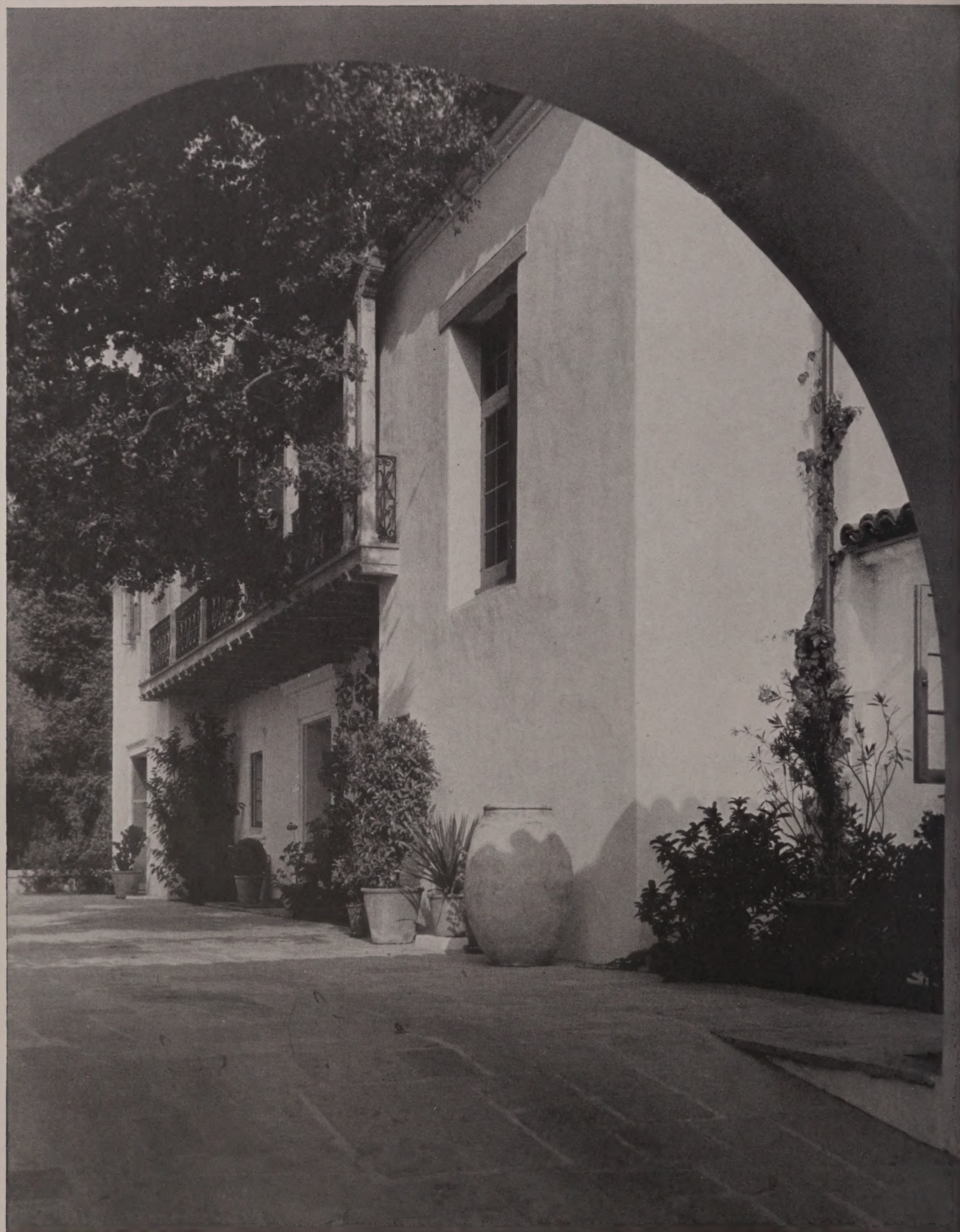
*Lawrence Licht*

*Walter T. Karcher & Livingston Smith; Hardware by The Iron-Craftsmen*









*Photograph by George D. Haight*

« ARCHITECTURE »

*Entrance court, house of William C.  
McDuffie, Pasadena, Calif. Reginald  
D. Johnson, architect*